

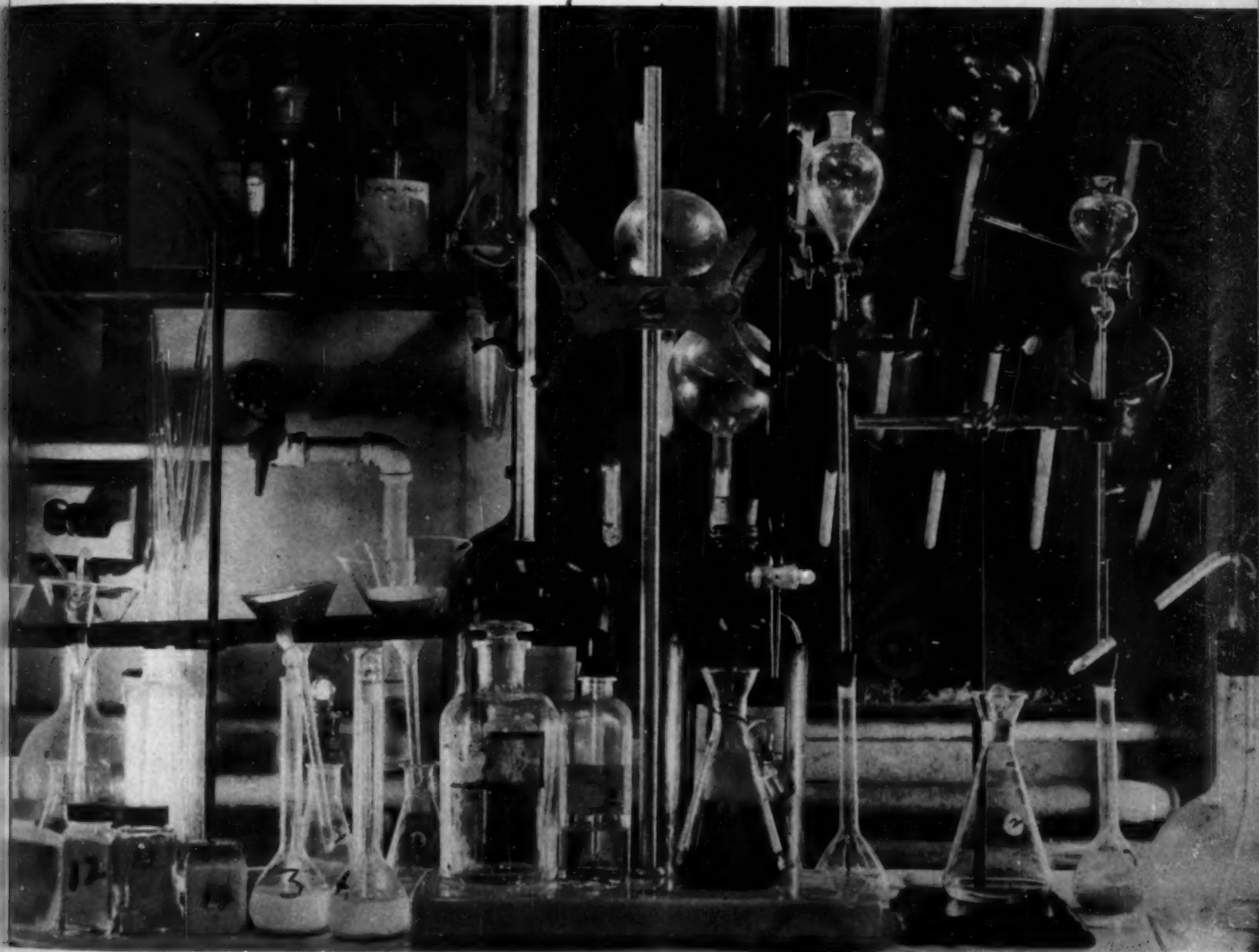
Consumer Reports

"FACTS YOU NEED
BEFORE YOU BUY"

VOL. 10, NO. 8

Published Monthly by Consumers Union

AUGUST 194



CHOCOLATE DRINKS
THE HEATING PLANT
HOUSEHOLD BLEACH

BUYING A HOUSE
HOUSEHOLD OIL
GI INSURANCE

CU Elections

All CU members will soon be asked to vote in the annual election of members of the CU Board of Directors. Directors serve for a term of three years, and the terms of five Directors expire this year. Nominations to fill the five vacancies have, in accordance with CU's by-laws, been made by both the old Board of Directors, acting as a nominating committee, and by individual members.

Because of the government restrictions on meetings, CU's annual meeting this year will be confined to a brief business meeting, to be held at CU headquarters, 17 Union Square, New York, at 3 P.M., September 22nd. Results of the elections will be announced at that time.

Following are the nominees whose names will appear on the ballot which will be mailed to all members:

Dr. Harold Aaron, Consumers Union Medical Adviser (Board nominee, nominated for reelection).

Dr. Hartley W. Cross, Professor of Economics, Connecticut College (Board nominee, nominated for reelection).

Dr. Joseph K. Folsom, Professor of Sociology, Vassar College (Membership nominee).

Osmond K. Fraenkel, attorney (Board nominee, nominated for reelection).

Dr. Phillip Gamble, Head of Economics Department, Massachusetts State College (Membership nominee).

Dr. Martha Potgieter, Associate Professor of Foods and Nutrition, University of Connecticut (Membership nominee).

Adelaide Schulkind, Executive Secretary of the League for Mutual Aid (Board nominee, nominated for reelection).

Dr. Ralph B. Tower, Head of Department of Economics and Business Administration, West Virginia University (Membership nominee).

Dr. Colston E. Warne, Professor of Economics, Amherst College (Board nominee, nominated for reelection).

CONSUMERS UNION is a non-profit organization chartered under the Membership Corporation Laws of New York State. Its purpose is to furnish unbiased, usable information to help families meet their buying problems, get their money's worth in their purchases, develop and maintain an understanding of the forces affecting their interests as consumers. Consumers Union has no connection with any commer-

cial interest and accepts no advertising; income is derived from the fees of members, each of whom has the right to vote for candidates to the Board of Directors. More than 70 educators, social workers and scientists sponsor Consumers Union and a national advisory committee of consumer leaders contributes to the formulation of policy (names of the members of the committee will be furnished on request).

CONSUMER REPORTS each month gives comparative ratings of a variety of products based on tests and expert examinations, together with general buying guidance, information on medical and health questions, and news of happenings affecting the consumer's interests. The Reports is the manual of informed and efficient consumers the country over.

THE BUYING GUIDE (published as the December issue of the Reports) each year brings together information from all the preceding issues with new material and special buying advice. Pocket-size, 384 pages, with ratings of several thousand products, the Buying Guide is an invaluable shopping companion. Every member gets a copy of the Guide with his membership.

BREAD & BUTTER reports each week on new and predicted price and quality changes in consumer goods, interprets Washington legislation as it affects consumers, reports government regulations and actions on the consumer front, advises on food buying and preparation.

SUBSCRIPTION FEES are \$4 a year, which includes subscription to the Reports and Buying Guide and Bread & Butter; \$3.50 without Bread & Butter (for foreign and Canadian memberships add 50¢). Reduced subscription rates are available for groups of 5 or more

(write for details). Library rates, for the Reports and Bread & Butter without the Buying Guide issue, are \$3.50; for the Reports alone, \$3.

Membership involves no obligation whatsoever on the part of the member beyond the payment of the subscription fee.

Consumer Reports is published monthly by Consumers Union of United States, Inc., 17 Union Sq., NYC. Entered as second class matter January 23, 1943 at the postoffice in New York, N. Y., under the act of March 3, 1879. Copyright, 1945 by Consumers Union of United States, Inc. Vol. 10, No. 8—Aug., 1945

Time for Action

Consumers Union has repeatedly urged its members to write letters to their representatives in Congress and to persuade their clubs and cooperatives and unions to write letters, pass resolutions, send delegations—all to help keep Congress on the difficult path of the public interest. We know both from our members and from statements of Congressmen, that CU members have performed nobly in helping to counter the pressure of powerful lobbies working for special interests and against the public interest. CU members can take credit for a significant contribution to the success of many legislative battles.

But the biggest and most important job for consumers on the political front lies ahead. That job is to see that Congress takes steps to insure enough purchasing power after the war to prevent a shattering depression. Congress had failed to prepare for the peace, and there is no reason to believe that it will make adequate preparations unless it is forced by the people to do so. Unless Congress does act, the kind of peace we hope for will be lost.

Several measures awaiting action by Congress could help to provide essential purchasing power after the war, and ease the transition to peace for millions of Americans. Because Congress has recessed without acting on these measures, many persons—businessmen, as well as consumers and workers—dread what may happen here if the war in the Pacific comes to a sudden early end; and they're not thinking only of themselves. Those who are now fighting the war have no wish on their return to swell the ranks of the unemployed. They don't look forward with any pleasure to apple-selling and soup kitchens when their veterans' benefits are used up.

Despite the possibility of an early end of the war, the members of Congress refused to forego their vacations in order to act even on emergency legislation. We believe that consumer and other organizations should not hesitate to interrupt those vacations. While members of Congress are at home, delegations should be sent to tell them what they must do when they go back to Washington. No political activity that consumers have ever undertaken is more important than this: to send their representatives back to Washington convinced that the people want legislation that will insure enough purchasing power after the war to provide good living standards for every family. Individual consumers should do their part by sending letters calling for support of progressive reconversion legislation.

The President's request for emergency unemployment payments to provide a minimum of security and purchasing power for the millions of war workers who face certain unemployment after V-J Day should be acted on by Congress without delay. The most important single item on the Congressional reconversion agenda is the Murray full-employment bill. There is not space here to review its provisions; we urge consumers to write to the office of Senator James Murray in Washington for a copy of the bill. (Also see analysis of the bill in *Bread & Butter*, June 16, 1945.) We believe that it is the most important means of insuring adequate purchasing power and a high standard of living for the greatest number of consumers after the war. Other bills and proposals which your representatives should be persuaded to support will be found in the statement on page 221 of this issue. And the best time to do the persuading is now.

Consumer Reports

"FACTS YOU NEED BEFORE YOU BUY"

"Because it was established for the very purpose of aiding families to buy wisely, to avoid waste and to maintain health and living standards, and because it is the largest technical organization providing such guidance, Consumers Union recognizes a special responsibility to the nation. In full awareness of that responsibility, we pledge ourselves to do everything in our power to help Americans as consumers make the greatest possible contribution to the national need."—FROM A RESOLUTION ADOPTED ON DECEMBER 10, 1941, BY THE DIRECTORS.

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 Consumer Reports Is Prepared and Edited Under Union Conditions by Contract with Local 1 of the U.O.P.W.A.

REPORTS ON PRODUCTS

Ratings of products represent the best judgment of staff technicians or of consultants in university, governmental and private laboratories. Samples for test are in practically all cases obtained on the open market by CU's shoppers. Ratings are based on laboratory tests, carefully controlled use tests, the opinion of qualified authorities, the experience of a large number of persons, or on a combination of these factors. Even with rigorous tests, interpretation of findings is a matter on which expert opinion often differs. It is Consumers Union's pledge that opinions entering into its evaluations shall be as free from bias as it is possible to make them.

Chocolate Drinks

... including fourteen brands of cocoa, 24 prepared cocoas and chocolate mixes, and eleven chocolate syrups are here rated on the basis of taste tests and chemical and microscopic analyses

During the earlier phases of the European war, when all kinds of cocoa and chocolate products were hard to get, shoppers were eager to buy almost any available product bearing the word "cocoa" or "chocolate" on the label. Now that the shipping lanes from Africa—the largest supplier of cocoa—are reopened, and grocers' shelves are piled high with cocoa products of many types and brands, shoppers are in the fortunate position of being able to buy again on a more normal price and quality basis.

That there are major differences between brands, CU found in tests of 49 brands and types of cocoa and cocoa products: two cocoas, six breakfast cocoas, six Dutch process cocoas, 24 prepared mixes (including instant cocoas, malted cocoas, and variously fortified cocoa-flavored drinks) and 11 chocolate-flavored syrups.

WHAT THEY ARE

All cocoa and chocolate products originate in the cacao bean, the seed of *Theobroma cacao*, a tree which

grows in tropical regions. Old Aztec mythology tells that the fruit of this tree was the favorite fruit of the gods; in fact the word "theobroma"—the name given to the tree almost 200 years after Cortez found it and introduced it to Europe—means in Greek, "food of the gods."

THE MANUFACTURING PROCESS

Before cacao beans can be used in the manufacture of cocoa and chocolate products, they must be fermented, cured and roasted to bring out the true chocolate flavor. Lack of care in these processes results in an inferior product, no matter how good the original quality of the bean. After roasting, the beans are freed from shell and germ, and become cacao "nibs."

The beans to be used for making cocoa powders are generally given a higher roast than those to be used for chocolate products, to aid in the removal of part of the cocoa fat. Chocolate "liquor"—the solid product which results from grinding the roasted cacao nibs—contains over 50% fat (cacao butter). In this form,

it is sold as "baking chocolate" or used directly in the manufacture of chocolate and chocolate products. But this high-fat chocolate is too rich for beverages, and the fat tends to separate out. A portion of it is removed, therefore, to make cocoa.

The cacao fat is partially removed by hydraulic pressure after the original chocolate liquor has been ground, and the resulting cakes contain 8% to 25% fat, depending on the time and the force of the pressure used. The final process consists of breaking up and grinding the cooled, partially-defatted cakes, then sifting and packaging them.

As defined by the Federal Food & Drug Administration, there are four types of cocoa—three of them for general home use:

BREAKFAST COCOA contains at least 22% fat;

COCOA has a fat content of 10% to 22%;

LOW-FAT COCOA contains less than 10% fat. This is not generally sold for home consumption, but is used commercially as a flavoring.

DUTCHED or DUTCH PROCESS COCOA has the same fat content as breakfast cocoa, but it is made in a somewhat different manner, and has slightly different characteristics. In the production of Dutch process cocoa, the partially roasted and cleaned cacao nibs are treated with a solution of alkali (carbonate, bicarbonate or hydroxide of ammonium, magnesium, potassium or sodium) before the roasting process is completed. The resultant product has a darker, more chocolatey color than ordinary cocoa of the same fat content, and a slightly different flavor. While the "Dutching" does not affect the actual solubility of the cocoa, the alkali-treated product does tend to form a better suspension, with less tendency to settle out and leave "dregs" at the bottom of the cup.

The selection of the type of cocoa for beverage purposes is a matter of individual taste preference, but Dutch process cocoa is generally considered superior for cooking and baking. In fact, Dutch process cocoa may be substituted for baking chocolate in most recipes, in the proportion of three tablespoonfuls of cocoa and one teaspoonful of table fat or cooking fat for a two-ounce square of baking chocolate.

The two brands of cocoa examined by CU had fat contents of 11% and 14%; the six breakfast cocoas all met F&DA fat requirements, containing 22% to 25% fat; four of the six Dutch process cocoas were also satisfactory in this respect, but two of them were substandard in fat content.

"CHOCOLATE-FLAVORED" syrups do not necessarily contain chocolate as the flavoring material. In fact, 10 of the 11 brands in CU's tests were flavored with cocoa, according to their labels; the remaining one contained both chocolate and cocoa. All of these syrups contained sweetening in the form of sugar syrup, corn syrup, or a combination of the two. Some contained, in addition, malt and other ingredients.

PREPARED CHOCOLATE MIXES, of which 24 brands were included in CU's tests, varied in composition from simple mixtures of sugar, cocoa, dried milk and flavoring to complex combinations such as *Hemo* or *Ovaltine*, which contained such additional ingredients as malt, soya or wheat flour, eggs, salt, flavoring, vitamins, minerals, etc. In some "health-drinks," the cocoa serves as a disguise to cover the objectionable flavors of the other ingredients and to make the resultant drink more palatable. That this dis-

guise is not always successful can be clearly seen in the ratings which follow.

In these drinks, as in the "chocolate-flavored" syrups, the term chocolate is used rather loosely. Only one of the 24 brands—*Choc*—was actually flavored with chocolate; four others contained a cocoa-chocolate combination; the remainder were actually cocoa-flavored.

HOW CU TESTED

Two types of tests were made in rating the cocoa products—chemical and "organoleptic" or "beverage" tests.

BEVERAGE TESTS were for color, body, flavor and aroma of the prepared product, when made in accordance with the manufacturer's directions. The composite "beverage" score was given a heavy weighting in determining the rating of the product.

CHEMICAL TESTS included determination of moisture, fat and ash for all products. For cocoas, amounts of shell and water extract were determined as well; for chocolate mixes, amounts of sugar, water extract and sediment were measured; for chocolate syrups, total solids and sugar content were found. These factors were considered in the final ratings of the products, but were given less weighting in the score than were the beverage tests.

In the ratings which follow, brands are listed in estimated order of over-all quality within each group. Prices in parentheses are for one pound of the product.

COCOA

ACCEPTABLE

Iona Cocoa (A&P, NYC). 5¢ for ½ lb. (10¢). Available nationally at A&P Stores.

Our Mother Pure All Occasion Cocoa (E. & A. Opler, Inc., Chicago). 10¢ for 1 lb. Available nationally.

BREAKFAST COCOA

BEST BUYS

Rockwood's Coronet Breakfast Cocoa (Rockwood & Co., Brooklyn, N. Y.). 12¢ for ½ lb. (24¢). Available nationally.

Baker's Breakfast Cocoa (Walter Baker & Co., Dorchester, Mass.). 10¢ for ½ lb. (20¢). Available nationally.

ACCEPTABLE

(In estimated order of quality)

Rockwood's Coronet Breakfast Cocoa (see "Best Buys").

Jewel Tea Cocoa (Jewel Tea Co., Barrington, Ill.). 30¢ for 1 lb. Available nationally via Direct-to-Home Service, and in Chicago at Jewel Tea Stores.

Baker's Breakfast Cocoa (see "Best Buys").

Maillard's Breakfast Cocoa (Maillard Corp., NYC). 21¢ for ½ lb. (42¢). Available nationally.

Co-op Breakfast Cocoa (National Cooperatives, Inc., Chicago). 24¢ for 1 lb. Available nationally at Co-op Stores.

Hershey's Breakfast Cocoa (Hershey Chocolate Corp., Hershey, Penna.). 10¢ for ½ lb. (20¢). Available nationally.

DUTCH PROCESS COCOA

BEST BUY

Rockwood's Chalet Dutch-Process Breakfast Cocoa (Rockwood & Co.). 10¢ for ½ lb. (20¢). Available nationally.

ACCEPTABLE

(In estimated order of quality)

Baker's De-Luxe Dutch Process Cocoa (Walter Baker Co.). 19¢ for ½ lb.

COCOA FOR CHILDREN?

Though cocoa is popularly regarded as a child's beverage, there's some question in medical circles as to whether this should be so. The question arises from the fact that cocoa contains the drug theobromine, an alkaloid related to the caffeine of coffee. Theobromine's stimulant effect is less marked than that of caffeine, but it has a second effect that may make it objectionable. Theobromine is a strong diuretic—that is, it stimulates the flow of urine. In view of this, it might be a good idea to use relatively small amounts of cocoa for young children, and to give them none for a few hours before bedtime.

In answer to an inquiry on the subject, *Hygeia*, a publication of the American Medical Association, replied:

"After the age of two or three years, there should be no harm in giving children cocoa two or three times a week, if it is not made too strong—that is, not stronger than a level teaspoon of cocoa per measuring cup of milk."



Cocoa samples were examined microscopically to find out how much cacao shell they contained. Too much shell means a gritty beverage.

(38¢). Available nationally.
Rockwood's Chalet Dutch-Process Breakfast Cocoa (see "Best Buys").
Van Houten's (C. J. Van Houten & Zoon, Inc.; distributed by H. J. Heinz Co., Pittsburgh). 19¢ for ¼ lb. (76¢). Available nationally.
Lily White Dutch Style (R. H. Macy & Co., NYC). 28¢ for ½ lb. (56¢). Available at Macy's Dep't Store, NYC.

NOT ACCEPTABLE

Hamstra's Dutch Process (H. Hamstra & Co., NYC). 43¢ for ½ lb. (86¢). Below minimum standard for fat. Weak flavor.
S. S. Pierce Co. Overland Genuine Dutch Process (S. S. Pierce Co., Boston). 19¢ for ½ lb. (38¢). Below minimum standard for fat. Not a Dutch process cocoa.

PREPARED MIXES

ACCEPTABLE

(In estimated order of quality)

Chox Hot Chocolate (Beatrice Creamery Co., Chicago). 25¢ for ½ lb. (50¢). Available in the Midwest.
Borden's Sweetened Chocolate Flavored Malted Milk (The Borden Co., NYC). 25¢ for 1 lb. Available nationally.
Ghirardelli Sweet Ground Chocolate and Cocoa (D. Ghirardelli Co., San Francisco). 28¢ for 1 lb. Available in the West, and NYC, Chicago and Washington, D. C.
Cocomalt Malted Food Drink (R. B. Davis Co., Hoboken, N. J.). 41¢ for 1 lb. Available nationally.
Guittard Sweet Ground Chocolate and Cocoa (Guittard Chocolate Co., San Francisco). 23¢ for 1 lb.
Carnation Chocolate Flavored-Sweetened Malted Milk (Carnation Co., Milwaukee, Wisc.). 43¢ for 1 lb. Available nationally.
Taste Rite Chocolate Flavored Sweetened Malted Milk (Euclid Coffee Co., Cleveland). 11¢ for 6 oz. (29¢). Available in Cleveland at Euclid Foods, Inc.
Kraft Sweetened Chocolate Flavored Malted Milk (Kraft Cheese Co., Chicago). 51¢ for 1 lb. Available nationally.
Ovaltine Food Beverage (Wander Co., Chicago). 65¢ for 14 oz. (74¢). Available nationally.
Tootsie V-M (Sweets Co. of America, Hoboken, N. J.). 47¢ for 1 lb. Available in the East and Midwest.
Golden State Sweetened Chocolate Flavored Malted Milk (Golden State Co., Los Angeles). 32¢ for 1 lb. Available in Calif.
Vim-Mix Chocolate Malted Flavor (Jewel Tea Co.). 40¢ for 1 lb. Available nationally via Direct-to-Home Service and in Chicago at Jewel Tea Stores.
Borden's Hemo (Borden Co.). 59¢ for

1 lb. Available nationally.
Borden's Instant Mix (Borden Co.). 17¢ for 8 oz. (34¢). Available in New England, N. Y., Penna. and Chicago.
Nestle's EverReady Sweet Milk Cocoa (Peter Cailler Kohler Swiss Chocolates Co., Fulton, N. Y.). 20¢ for ½ lb. (39¢). Available nationally.

NOT ACCEPTABLE

Coconog Malted Food Drink (A&P). 13¢ for 8 oz. (26¢). Excess sediment; rusty taste and appearance.
Durkee-Mower's Instant Sweeco (Durkee-Mower, Inc., Lynn, Mass.). 15¢ for 8 oz. (30¢). Little flavor and aroma.
Van Dutch Hot Chocolate Flavored Preparation (Van Dutch Products Co., NYC). 10¢ for four 1½-oz. packages. (35¢). Low in sugar; little flavor; excess sediment.
Joyana Chocolate Flavored (American Dietetics Co., Inc., Yonkers, N. Y.). 98¢ for 22 oz. (71¢). Too malty and sweet; little cocoa flavor.
Topmost Sweetened Chocolate Flavored Malted Milk (General Grocer Co., St. Louis). 39¢ for 1 lb. Thin; little flavor and aroma.

Watch for . . .

Work on the following reports, among others, is either now under way or scheduled to begin soon:

Sewing Threads

Beer

Electric Irons

Sanitary Napkins & Tampons

Tomato Catsup

Oleomargarine

Phonograph Needles

"Thermos" Bottles

Canned Peaches

Home Dyes

Vegetable Juices

Nu-Malt Chocolate Malted Food Drink (D. Ghirardelli Co.). 30¢ for 1 lb. Excessive malt; weak cocoa flavor. Sample not free-running.

Droste's Instant Cocoa for Hot Chocolate (H. Hamstra & Co.). 35¢ for ½ lb. (70¢). Thin; little aroma; flat flavor.
Van Houten's Vicoa (C. J. Van Houten & Zoon, Inc., distributed by H. J. Heinz Co.). 44¢ for ½ lb. (88¢). Excessive sediment; rusty appearance and flavor.

Van Dutch Chocolate Flavored En-Er-Gy (Van Dutch Prod. Co.). 60¢ for 1 lb. Low in sugar; little flavor; excessive sediment.

CHOCOLATE-FLAVORED SYRUPS

ACCEPTABLE

(In estimated order of quality)

Bosco Milk Amplifier (Bosco Co., Inc., NYC). 25¢ for 11 oz. (36¢). High solids and fat; very good flavor and beverage. Available nationally.
Cocoa Marsh Milk Booster Chocolate-Marshmallow-Malt Flavor (Taylor-Reed Corp., Mamaroneck, N. Y.). 22¢ for 1 lb. Very good flavor and aroma.
Min-O-Malt Chocolate Flavor Syrup (Almonette Candy Co., Lynn, Mass.). 49¢ for 1 lb. 6 oz. (36¢). Very good flavor and aroma.
Hershey's Syrup (Hershey Chocolate Corp.). 15¢ for 1 lb. Very good chocolate-flavor and aroma; dark, good color.
Borden's Chocolate Flavored Syrup (The Borden Co.). 29¢ for 13 oz. (36¢). Good normal quality; unusual, but good, color and flavor. Available nationally.
Cocoa Marsh Chocolate Flavored Syrup (Taylor-Reed Corp.). 22¢ for 1 lb. Fair, average type. Rather low in solids and fat; good color and flavor.
Velvet Chocolate Flavored Syrup (Sifers Chocolate Syrup Co., Iola, Kansas). 33¢ for 20 oz. (26¢). Good, though low in sugar. Good and somewhat different flavor.
Topmost Chocolate Flavored Syrup (General Grocer Co.). 32¢ for 22½ oz. (23¢). Fair. Low sugar and solids, high fat; good body and color, fair flavor.

NOT ACCEPTABLE

Blacow PDQ Chocolate Malt Flavored Syrup (Doelger Malt Products Corp., Harrison, N. J.). 25¢ for 15½ oz. (26¢). Low sugar and fat; weak beverage and flavor.
Bonus Chocolate Flavored Syrup (Bonus Products Co., St. Louis). 27¢ for 22½ oz. (19¢). Low sugar and solids; poor body, weak flavor.
Royal Scarlet Chocolate Syrup (R. C. Williams & Co., Inc., NYC). 25¢ for 20 oz. (20¢). Poor. High sugar, but not much else; weak flavor.

Your Heating Plant

You'd better go over it now, for this Winter will be one of shortages in fuels, equipment and service. CU's consultant here gives step-by-step details on what to do now, so that you'll get the most from your plant when heating-time begins.

Cold weather may still seem pretty far away, but it's not a bit too early to get your heating plant in readiness for it, if your house is to be warm when it does arrive. It's best to discover before there's frost in the air if the grates need new parts, or if the furnace castings have come apart as a result of inadequate Spring-cleaning, which gave Summer dampness a free chance to work with the corrosive ashes. Needed parts for oil burners take a long time to get; unless they're ordered now you may have to waste valuable fuel oil operating with inefficient apparatus, or do without heat until they arrive.

Burner repairmen complain—with justice—that they're rushed to the limit during the first cold days, when "everybody wants to start a fire at the same time." At such a time, they can't be expected to do as careful a job as in the off-season, when they have plenty of time.

LOW-GRADE OIL EXPECTED

Oil burners, especially, need careful conditioning this season, for the oil to be distributed this Winter—a wartime by-product of aviation gasoline—will be heavier and harder to burn clean than prewar oil. Most burners will need some adjustments or some new parts to burn the new-type oil efficiently. Some burners won't be able to use the new oil at all; they'll have to shift to No. 1 oil or kerosene. (For full discussion of this problem, see the *Reports*, January 1945.)

Owners of coal-fired heating plants can generally, if they are so inclined, take care of any needed cleaning and adjustment without outside help. Oil-burner owners, however, will generally need some outside help from an expert, though they can learn, without too much difficulty, to handle certain adjustment chores and some frequently encountered difficulties.

These latter include such problems as re-starting the burner after it has run out of fuel, air-riding a burner that won't start because of the presence of air in the oil pump, adjusting the atomizing pressure, adjusting the smokepipe draft, keeping the motor clean and properly lubricated, clean-

ing a plugged atomizing nozzle, adjusting the air damper on the burner for high efficiency and low oil consumption.

The suggestions which follow are practical, based upon actual field experience with many hundreds of heating plants.

If You Heat With Hand-Fired Coal . . .

Thousands of coal heating plants are in poor condition because they have been neglected and abused. Unless yours is the exception, it now needs thorough cleaning, minor attention to grates and dampers, painting, and a check-over to see whether repairs or new parts are needed before the heating season begins. The following step-by-step check-up system is recommended:

1. **CLEAN THE FLUES.** Remove the smokepipe and open the clean-out doors. Then, with the help of a wire flue brush and an electric light on a long cord, give the entire "insides" of your furnace a thorough scrub-down. Start at the top and work down.

2. **CLEAN THE SMOKEPIPE.** You'll probably find that the smokepipe, which you removed in order to clean the flues, is at least a quarter full of scale, ashes and soot. Clean it from end to end. Look for thin parts or portions that have become rusted through, and replace them. Before you put back the smokepipe, check the chimney. First scoop out the soot and fly-ash you find in the base, at the smokepipe connection. Then hold a mirror in the chimney flue during the daytime, and see if it will reflect the sky. If not—if the chimney hasn't been cleaned for a long time—better have the chimney cleaned. Don't do it yourself unless

there is a safe perch on the roof next to the chimney-top. If you do it yourself, wrap a paving stone or other heavy weight in several thicknesses of burlap, tying it with strong rope, then pull the weight up and down the chimney by means of the rope.

3. **CHECK THE GRATES.** Inspect the grates carefully, using an electric light. Replace any parts that are broken, warped or otherwise in poor condition. Check to see that the pins, bolts and levers which rock the grates are in good operating condition.

4. **INSPECT THE DAMPERS.** For proper control, your heating plant needs the following dampers in good working order:

A check damper in the smokepipe. This permits cold air from the basement to enter the smokepipe. The opening should be nearly the full size of the smokepipe, and there should be a wire or lever to permit adjustment of the damper to any desired opening. When closed, the damper should fit tightly, without draft-killing air leaks at its edges; the lid should be able to open wide.

A turn damper in the smokepipe. This should be between the check damper and the furnace or boiler (see drawing), rather than between the chimney and the check damper. The latter position is unsafe, for

with both dampers set to bank the fire, poisonous gases may escape into the basement through the check damper. The turn damper is simply a cast-iron disc, fastened to a shaft carrying a handle, which is turned to open or close the damper. There is a hole through the center of the disc, so that even when the damper is in "fully-closed" position, smoke can leave the furnace. Sometimes the hole in the turn damper is too large, so that it is impossible to bank the fire adequately overnight, or during mild weather. This can be remedied by bolting heavy sheet metal to the damper, so that the metal covers about half of the hole.

An ashpit damper. This controls the air flow to the grates. For best control, the ashpit door should be kept closed, and the ashpit damper should be used to regulate the rate at which the fire is to burn. Make sure that the damper can be opened wide and closed tight, and that it can be set at intermediate positions.

5. DOORS TIGHT? Inspect the clean-out and firing doors, and repair or replace any doors or door-frames which are in poor condition. Unless the doors are air-tight, they admit cold air into the fire box or flues,

thus chilling the interior and wasting coal. The flue doors should open and close easily, to make simpler your job of cleaning fly ash and soot from the flues. (This should be done every two or three weeks during the Winter.) The air damper in the firing door should work freely and close tightly.

6. SEAL GAS LEAKS. Gas leaks are cracks through which gases from the fire-bed can escape when a roaring fire is suddenly fully banked. They are especially dangerous on hot-air furnaces, for they may allow poisonous gases to seep through to the rooms upstairs. The dotted arrows in the accompanying diagram show places where gas leaks commonly occur. If you have a hot-air furnace, use an electric light to search for gas leaks between the sections and for burned-through castings that create gas leaks. To seal small cracks at the joints between sections or in other places, first clean the openings of soot and scale, then apply "furnace putty," "furnace cement" or "iron cement" (available from hardware or heating supply stores).

7. SEAL AIR LEAKS. Air leaks are cracks or openings which permit air from the basement to enter the furnace or

boiler where it should not enter. You have an air leak if the basement floor is uneven, and you can "mail a letter" through a crack between the ashpit casting of the boiler and the basement floor. There is an air leak if the vertical sections of a rectangular boiler are not fitted tightly together and sealed with furnace cement, and you can see the fire between them. In fact, when all the doors are closed and the dampers at the ashpit and the firing door are closed, any opening that permits air to get into the furnace or boiler is an air leak. Such leaks should be located and sealed tightly with furnace cement for fuel economy; unless they are closed, they waste coal by permitting the entrance of unwanted air which chills the fire. Further, they interfere with proper control of the fire by means of the dampers.

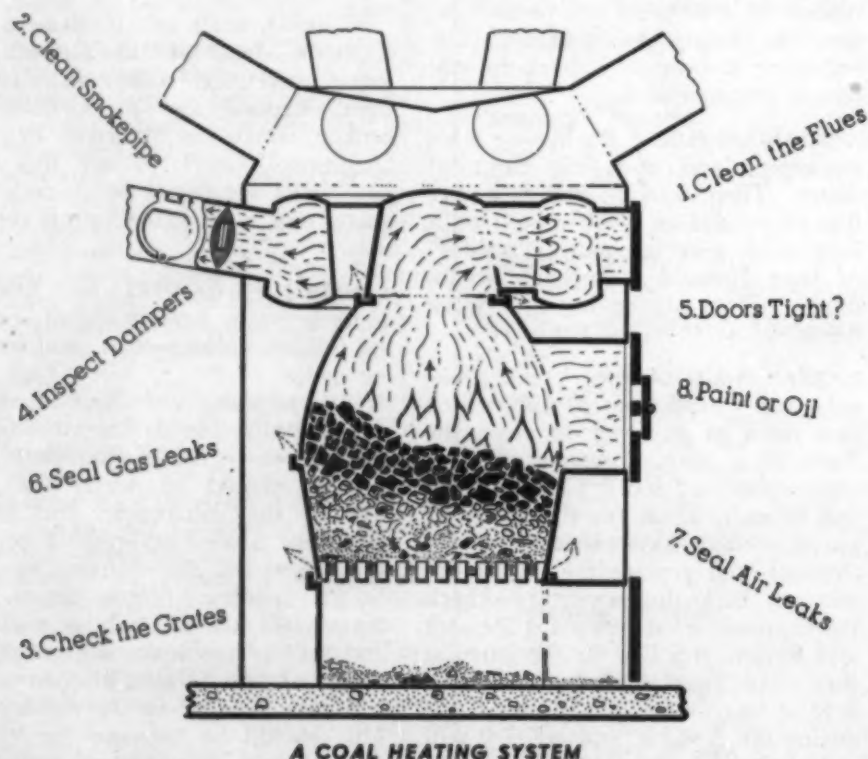
8. PAINT OR OIL. The metal parts on the outside of your furnace or boiler should have a coat of suitable enamel every year, to preserve them against corrosion. Give special attention to the clean-out and firing doors and frames, to cast-iron furnace-fronts, and to smoke-hoods, dampers and grate-shaking bars and levers outside the high-heat zones. Next-best thing to applying a coat of paint to idle equipment is to give it a coat of oil to prevent rust and corrosion.

If You Heat With Oil

The combination of shortages in both fuel oil and experienced oil-burner repairmen, plus poor oil-burner operation and breakdowns which are resulting from inferior wartime oils, are excellent reasons why you should be particularly concerned about your oil burner this season.

The step-by-step check-up system which follows is intended for the usual oil-fired plant, equipped with a pressure atomizing gun-type oil burner. You may or may not be able to do the whole job yourself. But even if you have parts of it done by a mechanic, you'll be able to check on the work he does if you know the "how" and "why" of the work.

1. CLEAN FLUES. Because the wartime fuel oils form more soot, flue cleaning should be more thorough and more frequent than it was before. Start the heating season with the flues thoroughly cleaned, then keep them clean with a flue brush. Some



A COAL HEATING SYSTEM

Showing the location of some of the critical points, discussed in the article, which need immediate attention. The furnace above is typical, but yours may differ in details.

plants require flue-cleaning as often as four times a year with the new oils. Don't use "soot remover" compounds for this purpose (see the *Reports*, February 1944).

2. DRAFT REGULATOR. The smokepipe draft regulator should be kept clean and in good condition, so that it swings freely from one position to another. It should be adjusted for the lowest satisfactory draft. CU field tests show that by adjusting for lower draft (regulating the standard swinging smokepipe draft regulator so that it swings open more easily), considerable fuel could be saved on a great many oil burners. In fact, many burners perform well at the lowest setting of the draft regulator. Any mechanically adept burner-owner can make the required draft adjustment. He should first mark the adjustment he starts with, and then alter it by a measured amount, so that if he goes too far he can change back. Adjust the draft as low as possible without making the flame excessively smoky (note if there is any chimney smoke) and without causing odors in the basement when starting the burner.

3. AIR LEAKS. An air leak is a crack in the furnace or boiler that permits air to enter where it should not. The best way to locate such leaks is by "candling." With the plant hot (so that there is a chimney draft), hold the candle so that its flame wipes the suspected crevice. The flame will be drawn into any leak. Air leaks are most commonly found around the flue clean-out, the firing doors and their frames, the tops and bottoms of boiler ashpits, the asbestos fronts of fireboxes, and between the sections of cast-iron boilers. To get the most heat from the oil you burn, air leaks must be sealed.

If you don't want to do the searching and mending job yourself, present your oil burner serviceman with a lighted candle the next time he comes to look at your plant. If he knows his business, he'll know what "candling" is.

4. CLEAN STRAINERS. Oil strainers need cleaning more frequently than they used to, with the dirtier wartime oils. The most important and largest strainer is generally close to the oil pump, and it should be cleaned before the Fall, even if the other strainers are not. If you can use a screwdriver and a wrench, you should have

no trouble learning to do this job after a few minutes' instruction from your oil burner serviceman or a representative of your fuel oil supplier. Since the burner is likely to become "air-bound" after the strainer has been cleaned and put back together, your lesson should involve learning how to let air out of the oil pump or "fuel unit"—a good thing for you to know in any case, as it must often be done when the burner has run out of oil, or has stopped for some other reason.

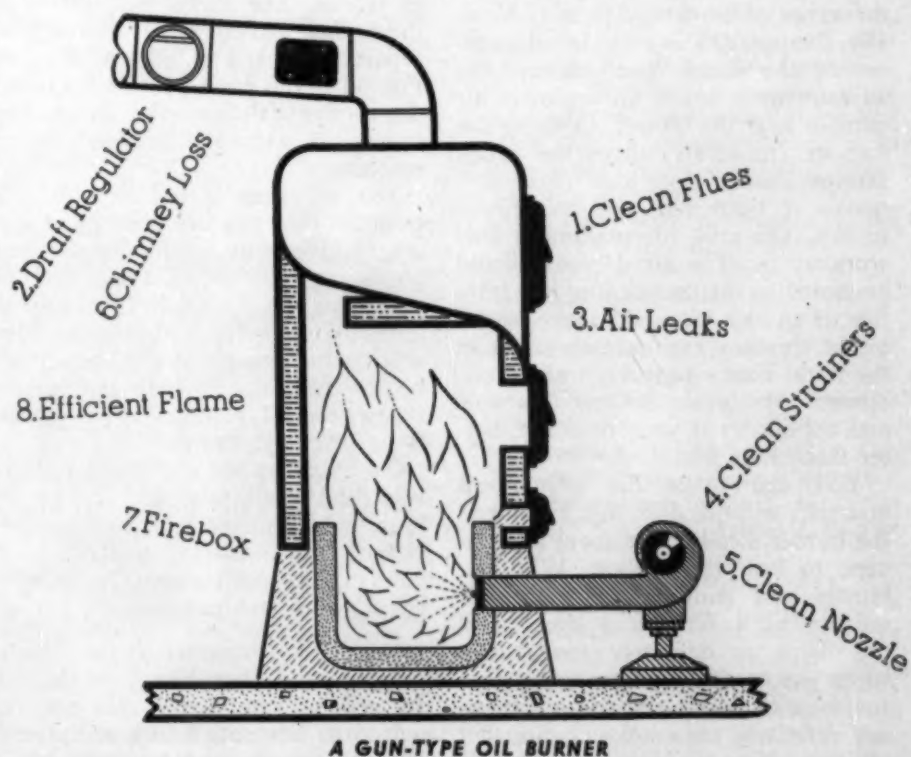
If you have not already followed CU's earlier recommendation to have an additional oil-line strainer or filter installed, better have it done now. Even with the relatively clean, pre-war oils, this was a good thing to have. With the dirtier oils now available, it is badly needed to avoid burner breakdowns.

5. CLEAN NOZZLE. A nozzle that is fully plugged will call itself to your attention by stopping the burner. But a partially-plugged nozzle may waste a great deal of your precious oil quota without your realizing it, since the skimpy, white flame it gives is very inefficient. Before the heating season starts, therefore, have the nozzle checked to make sure that it is not partially plugged. Again, if you

are at all mechanically adept, you should be able to learn how to do the job yourself after some instruction from your serviceman or fuel oil supplier.

A new nozzle (which should cost \$1.50 to \$2 plus installation) may be needed for more economical operation with the heavier oil now being used. (See the *Reports*, February 1943, for details on why and how to save oil through use of a smaller flame.)

6. CHIMNEY LOSS. This can be measured only by someone equipped with the proper measuring devices, but it is worth having done, for in many oil burner installations 20% to 50% of the heat escapes up the chimney. The test takes no more than 20 minutes (it consists of a measurement of the draft, of the carbon dioxide content of the flue gases, and of the temperature of the gases in the smokepipe), and many servicemen make it without extra charge, as part of the regular servicing procedure. If your serviceman is not familiar with the procedure, get in touch with your fuel oil supplier. He will either make the test for you or recommend someone who specializes in testing. (See the *Reports*, February 1943, for details on what you should know



A GUN-TYPE OIL BURNER

This is the type most commonly used for home heating. Points that need attention in the pre-season check-up are shown above. A little care now will give you more heat next Winter.

about testing for maximum fuel economy.)

7. FIREBOX. Your oil-burner serviceman may offer to install a new firebox, at a cost of about \$25 to \$75. This may or may not be a worthwhile investment; a well-designed and constructed firebox may cut your oil consumption by about a third. And if your firebox is more than about four years old, chances are that replacing it with a well engineered firebox built of modern, lightweight refractory material will be advantageous. But there are certain precautions you should take before you accept the offer at face value. First, you should regard as an "expert" only a man who makes combustion tests on your burner as a matter of course, and who is able to explain them to you fully and intelligibly. Second, you should have the installer give you a statement in writing on the actual extent to which the new firebox he recommends will improve combustion in your burner, as shown by carbon dioxide and temperature tests.

8. EFFICIENT FLAME. Many oil-burner owners have the erroneous impression that a white, skimpy flame is efficient, and a reddish flame, "on the verge of smoking," is not. Actually, the opposite is true. In oil burners of the usual "gun" design, the adjustment is made on a simple air damper near the blower. Opening the damper (more air) gives the white, skimpy flame; closing it (less air) makes it burn red, and eventually smoky. The rule for maximum fuel economy is: The air damper should be closed so far that closing it a fraction of an inch more will make smoke in the chimney and excessive soot in the flues. Every properly-trained oil-burner serviceman knows this rule and applies it; if your does not, better teach it to him.

You can make the adjustment yourself, without difficulty. First, run the burner steadily for about 20 minutes, to heat the firebox. With the burner still running, close the air adjustment a little at a time, until the flame is definitely too smoky when you snatch open the firing door for a quick look at it, or until you can definitely see smoke coming out of your chimney. Now open the air damper a little—but only enough to rid the flame of its soot-forming tendency, and to cause clear gases,

rather than dark smoke, to come from the chimney. Never judge the flame with the door of the firing box kept open. The door should be kept closed except for the second or two it takes to look at the flame. And the door should, of course, be kept closed while you go to inspect the chimney.

On some burners, the air inlet

must be adjusted from time to time, for the flame often needs more air in mild weather than it does in mid-winter. It will, therefore, be worth while for you to learn to do it yourself, though it's a good idea to have your first attempt checked by a serviceman with a good understanding of oil burners and combustion.

Household Oils

A good oil can mean the difference between equipment that lasts and equipment that wears out before its time. CU's ratings of 24 brands tell which ones are most reliable

Many household tools, gadgets and motors live less than their normal quota of years for the lack of a drop of oil in the right place at the right time. Many others, which are oiled when oil is needed, have long and trouble-free lives with nary a squeak or whine. The moral—especially in these days when replacements and repairs are hard to get—is obvious. For oil is the great protector against destructive friction—the force that causes the wear and tear on moving machinery.

But oil alone is not enough; it's essential that you use good oil if you are to give your machinery the best possible protection. It avails little if you oil a motor on schedule, only to have the oil corrode the metal. Nor will your lawn mower be much helped by an application of light typewriter oil when it needs something more substantial.

To check on the quality of widely-sold household oils, CU tested 24 brands in terms of viscosity (at different temperatures), neutralization number, corrosiveness (tarnishing effect) and flash point.

VISCOSITY is a measure of the "thickness" or the "heaviness" of the oil. In general, the heavy oils are required to lubricate heavy equipment. Viscosity varies with temperature; it becomes lower (that is, the oil becomes lighter) as the temperature is increased. Most of the household oils

were found to be light in body; only three—*Tavern Electric Motor Oil*, *3 in 1 Heavy Body Oil* and *Gulf Electric Motor Oil*—were relatively heavy, about equivalent to the SAE 20 oils used in automobiles. If you use such oils in substantial quantities, SAE 20 oil, bought by the quart in a garage or auto store, would be a better buy.

NEUTRALIZATION NUMBER is an indication of the oil's acid content, and is a measure of its tendency to corrode metals. All the oils tested were more or less acid, but some much more so than others. Only five of the 24 contained less acid than the maximum permitted by Federal Specifications for government purchases, but ten others were so slightly above specification in acid content that they were judged "Acceptable" for ordinary household use.

TARNISHING EFFECT indicates the presence of sulfurous compounds in the oil. These tend to corrode metal parts, and their presence is undesirable.

FLASH POINT—the temperature at which the oil bursts into flame under specified conditions—is important not only because of the fire hazard involved in the use of a low-flash oil, but also because low flash point indicates mixture of the oil with excessive amounts of kerosene. Two of the oils tested—*Cross Country Penetrat-*

ing and *Gulf Penetrating*—had flash points below the minimum permitted by Federal Specifications.

HOW OIL WORKS

A film of oil between moving metal parts permits easy slipping of the parts over one another, thus cutting down friction. The friction is not eliminated completely, however, for the very rubbing of the oil upon itself causes some friction; the heavier the oil, the greater is the friction within it. On the other hand, though very light oil brings internal friction down to a minimum, an oil that is too light for the tool on which it is used won't give maximum protection against the friction of the parts on one another. Obviously a compromise between the two extremes is called for.

For most household purposes—sewing machines, phonograph turntables, baby carriages, door hinges and locks, typewriters, etc.—a light oil (low viscosity) will do the best job. For heavier equipment—washing machines, pumps, lawn mowers, etc.—a light motor oil will do a better job. Some motors and gear boxes are “sealed,” that is, they are packed in grease at the time of manufacture. These require no oiling; when lubrication is needed it is best left to a serviceman who can take them apart and reseat them.

OIL TYPES

The most satisfactory oil for lubrication is highly-refined petroleum (mineral oil) from which asphaltic and gummy materials are removed in refining. Vegetable and animal oils are not suitable for this purpose, as they tend to “gum up” on standing. However, a small amount of such organic oil added to the mineral oil does no harm.

You can generally recognize a clean mineral lubricant from the color and the odor. It should have a clean smell, neither fishy nor kerosene-like. The color should be light yellow or yellow-green, practically transparent.

Some manufacturers add kerosene to relatively heavy oil to produce a light household oil. Kerosene is useful as a rust-remover, but it has practically no lubricating effect. Furthermore, addition of too much kerosene to oil produces a mixture having a low flash point, and there is some fire hazard involved in its careless use.

Graphite—the substance used to make the “lead” of lead pencils—is a useful lubricant for some purposes, but is not recommended for general household use. One of the brands tested—*Gulf Penetrating Oil*—appeared to be a suspension of graphite in oil thinned with kerosene or some similar solvent with a low flash point.

CONTAINERS

The prewar containers, with their convenient spout tips, are now practically off the market. You can buy a small spout-can and transfer your oil to it. If you have to do some oiling and have no spout can available, a medicine dropper will make a satisfactory substitute.

RATINGS

The oils were rated on the basis of the tests enumerated above. Brands rated “Acceptable” are in order of increasing acidity, since all “Acceptable” brands passed the other tests. “Not Acceptable” brands are in alphabetical order, but note accompanying comments. Figures in parentheses represent cost per ounce of oil.

BEST BUYS

Veeco Stainless Sewing Machine Oil (American Products Co., Cincinnati). 13¢ for 6 fl. oz. (2¢). Very light oil. Available nationally.

Veeco Household Oil (American Products Co.). 10¢ for 4 fl. oz. (2½¢). Very light oil. Available nationally.



Gulf Electric Motor Oil costs 3.8¢ an ounce. If you need a good deal of it, you get better value from SAE 20 automobile oil, at 25¢ a quart (.7¢ an ounce).

ACCEPTABLE

The following met Federal Specifications including those for neutralisation number:

Veeco Stainless Sewing Machine Oil (see “Best Buys”).

Veeco Household Oil (see “Best Buys”).

A-Penn All Purpose Machine Oil (A-Penn Oil Co., Butler, Penna.). 11¢ for 3 fl. oz. (3.7¢). Very light oil. Available east of the Mississippi and on the West Coast.

Esso Handy Oil (Esso, Inc., Bayway, N. J.). 10¢ for 3 fl. oz. (3.3¢). Very light oil. Available on East Coast.

Tavern Electric Motor Oil (Socony-Vacuum Oil Co., Inc., NYC). 20¢ for 2½ fl. oz. (8¢). Heavy Oil. Available nationally.

The following met Federal Specifications except for neutralisation number. They were, however, judged satisfactory for general use.

3 in 1 Oil (A. S. Boyle Co., Jersey City, N. J.). 25¢ for 6 fl. oz. (4¢). Very light oil. Available nationally.

Ever-Ready Machine Oil (Plough, Inc., Brooklyn, N. Y.). 10¢ for 4 fl. oz. (2½¢). Very light oil. Available nationally.

Gulf Electric-Motor Oil (Gulf Oil Corp., Pittsburgh). 15¢ for 4 fl. oz. (3.8¢). Heavy oil. Available in Texas, Ark., La., and east of the Mississippi except in Wisc. and Ill.

Oilit (Larkin Co., Buffalo). 20¢ plus postage for 3 fl. oz. (6.7¢ plus postage). Very light oil. Available by mail order.

Wards Fine Machine Oil, Cat. No.—9531 (Montgomery Ward). 9¢ plus postage for 4 fl. oz. (2.3¢ plus postage). Very light oil. Can was marked “Fine Machine Oil,” catalogue described same number as “Light Machine Oil.” Available by mail order.

Gulf Oil Household Lubricant (Gulf Oil Corp.). 25¢ for 4 fl. oz. (6.3¢). Very light oil. Available in Texas, Ark., La., and east of the Mississippi except in Wisc. and Ill.

Radiant Machine Oil (Midway Chemical Co., Jersey City, N. J.). 10¢ for 6 fl. oz. (1.7¢). Very light oil. Available nationally.

Cross Country Light Machine Oil, Cat. No.—4408 (Sears, Roebuck and Co.). 19¢ plus postage for 1 qt. (0.6¢ plus postage). Light oil. Available by mail order.

Dart Household Machine Oil #1 (Slick-Shine Co., Newark, N. J.). 10¢ for 5 fl. oz. (2¢). Very light oil. Available nationally.

Nye's Machine and Household Utility Oil (Wm. F. Nye, Inc., New Bedford, Mass.). 10¢ for 4 fl. oz. (2½¢). Very light oil. Volume not stated. Available in East, Central States and Calif.

CONTINUED NEXT PAGE

NOT ACCEPTABLE

(For the reasons stated. Listed in alphabetical order, but note comments.)

All-Nu Machine Oil (All-Nu Products Co., Camden, N. J.). 13¢ for 4 fl. oz. (3.3¢). High neutralization number.

Cross Country General Purpose Oil, Cat. No.—4411 (Sears, Roebuck and Co.). 9¢ plus postage for 4 oz. (2.3¢ plus postage). High neutralization number.

Cross Country Penetrating Oil, Cat. No.

—4410 (Sears, Roebuck and Co.). 21¢ plus postage for 1 pt. (1.3¢ plus postage). Excessively low flash point, high neutralization number, showed tarnishing effect.

Gulf Penetrating Oil (Gulf Oil Corp.). 15¢ for 4 fl. oz. (3.8¢). Contained colloidal graphite. Excessively low flash point and high neutralization number.

Mobil Handy Oil (Socony-Vacuum Oil Co., Inc.). 27¢ for 2½ fl. oz. (10.8¢). Highest neutralization number of all brands tested.

Nyoil (Wm. F. Nye, Inc.). 10¢ for 1 fl. oz. Showed tarnishing effect.

Singer Oil (Singer Machine Co., Elizabeth, N. J.). 15¢ for 3 fl. oz. (5¢). Showed tarnishing effect.

3 in 1 Heavy Body Oil (A. S. Boyle Co.). 10¢ for 2 fl. oz. (5¢). Showed tarnishing effect.

Veedol Household Oil (Tide Water Associated Oil Co., NYC). 18¢ for 4 fl. oz. (4½¢). High neutralization number; showed tarnishing effect.

Want to Buy a House?

If you feel an irresistible urge to buy a home, count slowly up to a thousand—then don't. Don't buy it now, even if you are living in very uncomfortable surroundings, in a cramped, miserable war-time apartment. If you do, it's almost certain that you'll be sorry. For those who can't resist cashing in their War Bonds to pay a hefty down-payment on a home are very likely to be gypped.

Now is the worst possible time to buy. In some cities homes are selling for 30%, 50% and even 100% more than they brought before the war. In Washington, D. C., for example, many homes that sold for a little less than \$6000 before the war are now bringing \$10,000—and you have trouble getting through the crowds to see them. On the West Coast, in the Middle West, and in many other areas similar things are taking place.

PRICES DROP SLOWLY

Right after the war won't be a good time to buy, either. There is a big stored-up demand for homes, and there just won't be enough to go around. It'll take some time for enough homes to come on the market to drive prices down. Prefabrication and large-scale mass production on the site are both in the picture and when once in full operation, they will help. But right now, according to the Bureau of Labor Statistics, the cost of building the average six-room house is about 20% higher than it was at the start of the war.

"Wait," is the advice of experts, who warn of current inflated prices in construction and material costs, and suggest that developments in many lines may make postwar housing worth waiting for

In other words, on the basis of national averages, it now costs \$7200 to build precisely the same home you could have built shortly before the war for \$6000. And it is unlikely that these costs will drop suddenly after the war.

There has, of course, been much talk about the kind of homes we'll get after the war. We've been led to expect everything from transparent pipes to solar heating. And it is characteristic of the building industry that instead of plowing ahead and trying to provide the best possible housing, it has concentrated its energies on an organized propaganda campaign to debunk the postwar dreamhouse. This has been done to assuage its fear that when home buyers see the same old house built in the same old, inefficient way at the same old, high prices—above the means of most families—they will

sit back and hold off for better deals, thus delaying the building so eagerly anticipated by builders, manufacturers of building materials, realtors, mortgage bankers and others.

Really adequate homes have never been produced in this country at prices to meet the needs of the great mass market. Antiquated methods still cling to one of our largest and most important industries. Today, after a century of advances in science and engineering—a century that saw the development of the automobile, the radio, and the airplane, all produced through mass production methods—most homes are still built in pretty much the same way they were a hundred years ago.

PRIMITIVE BUILDING METHODS

An illustration of the primitive handicraft methods still followed can be found in the exterior wall of the modern frame house. This wall is built to support a roof and to keep out rain, heat and cold. Its function does not seem hopelessly complicated. Yet, today this wall is built of fourteen separate layers, each one applied by hand on the site. As listed in "Housing Costs," a pamphlet issued by the National Housing Agency, they are, working in from the outside:

1. Finish coat exterior paint
2. Second coat exterior paint
3. Priming coat exterior paint
4. Exterior siding, clapboard or shingles
5. Building paper

6. Sheathing
7. Studs and framing
8. Insulation
9. Vapor Seal
10. Lath
11. Brown coat plaster
12. Finish coat plaster
13. Sizing coat interior paint
14. Finish coat interior paint (may be additional priming coat)

Of course, you pay for such pre-historic construction methods every time you buy or build a home. In the same way, you pay for obsolete building codes that require sixteen-inch foundation walls, when eight-inch walls are adequate; or construction designed to support a live floor load of 60 pounds per square foot, when construction based on a live load of 40 pounds is enough.

There are other reasons why houses cost so much. Some declare it's because of high labor costs, others vehemently point to the cost of distribution, others cry it's the high cost of building materials, many claim it's exorbitant financing charges, and still others shout there is just too much profit on too many items that go into a home.

WHERE YOUR MONEY GOES

Recently the National Housing Agency dissected the various cost elements going into a composite house. This house is a kind of national average and contains all kinds of materials. Therefore, it is not typical for any one region or section of the country, or for any one type of construction, but it does serve to give you a rough idea of where the money you spend for a home goes.

The cost of manufacturing the materials out of which the house is made was found to be responsible for 20.9% of the total cost of the house and land. Cost of distributing these materials was 14.8% of total cost; cost of transportation amounted to 3.9%; and the combined profits on building materials was 6.1%. All in all, the cost of materials delivered to the site ate up 45.7% of the total cost of the house and land. On top of this, construction labor at the site took 29.5%, contractors' and subcontractors' overhead and profit took 12.3%, value of unimproved land 7%, and cost of land improvements 5.5%.

In the case of some materials, distribution costs were greater than manufacturing costs. The cost of manufacturing lumber, for example,

was 4.19% of total cost, but the cost of distribution was 4.64%. Millwork was responsible for 2.88% and the cost of distributing it ran to 3.1%.

The very great importance of the structural shell of the house as a cost item is made clear when it was found to be responsible for 60% of the total cost of the house and land. This structural shell, built largely by handicraft methods, and involving the fitting together of many thousands of pieces of material on the site, consists of walls, partitions, floors and roof. If the cost of this complex structure could be reduced by 50%, the total cost of the house would be cut 30%. In other words, you'd get a house now costing \$7000 for \$4900.

It is here that prefabrication and the development of a single material to replace the fourteen layers now used in a frame house could make a real contribution to the production of lower-cost homes.

FINANCING AND OTHER COSTS

Reduction in interest charges and lower maintenance charges can, of course, help to reduce the cost of home ownership, though not to as great an extent as is commonly believed. For example, a 20% reduction in interest—from 5% to 4%—would represent a saving in monthly costs of 5.4%. But if the capital cost of the house (that is, the actual cost of the land and construction) were reduced by 20%—from \$5000 to \$4000—the monthly payments during the life of a twenty-five year mortgage would be cut 16.4%.

In this connection, the following table is of interest. It shows the monthly cost of owning a home valued at \$5000 and is from a report by the National Housing Agency.

The costs will, of course, vary considerably by regions and even by neighborhoods. They are national averages and cannot be applied to any single house, because of wide differences in closing charges, taxes, maintenance, and other costs.

Several points in the table are of particular interest. Note that the mortgage on this so-called \$5000 house is \$4500. But over a period of 25 years, the owner pays \$3393 in interest, which when added to the \$4500 debt and the \$500 down payment means a total cost of \$8393 for the \$5000 house. And if you consider other items, such as closing charges, maintenance, taxes, insurance, etc., you pay \$14,817 for this \$5000 home—almost three times as much as the "purchase price."

Reductions in various cost items would obviously help cut the total cost of home ownership. But savings in some items amount to much more than in others. Suppose, for example, it were possible to reduce each item by 20%, what would the savings amount to in dollars and cents? A 20% reduction in the interest rate—from 5% to 4%—would save you \$2.56 a month. A 20% reduction in amortization could be obtained by extending the period from 25 to 31¼ years, and you would save \$2.15 a month, but the house would cost more to own because of the longer period in which interest would have to be paid and because of a more gradual reduction in principal. If the capital cost were cut 20%—from \$5000 to \$4000—you would save \$7.76 a month, or \$2328 over the entire 25-year period.

NEW METHODS CUT COSTS

Just how such cost reductions can

Monthly Cost of Owning a \$5000 Home

Initial Cash Payments:

Down payment (90% mortgage)	\$500
Closing fees and commissions	\$100
Total Cash Payments	\$600

Monthly cost for:

	First 25 Years	Next 15 Years
Interest (5%)	\$11.31	—
Amortization (25 years)	\$15.00	—
Loss of Int. on cash payments (3%)	\$1.50	\$1.50
Taxes (2½%)	\$10.42	\$10.42
Hazard Ins. (2/10 of 1%)	\$.83	\$.83
Maintenance (\$100 per annum)	\$8.33	\$8.33
Total Monthly Cost	\$47.39	\$21.08

be made is still something of a problem. But they are definitely post-war possibilities. New techniques, learned through the production of war housing on a large-scale basis, will help. In some of the war housing projects entire communities of 1500 and more homes have been built with the aid of mass production assembly-line methods applied on the site. In such projects, pier holes were dug at the rate of some 400 a day by use of a tractor; 100 rafters per hour were cut on roller tables by a single operator; foundations were often precast, and dumped into waiting holes or machine-dug trenches; entire plumbing hook-ups were assembled on jigs and installed in a single operation; floor sections were put together in a central plant on the site, then shoved into place from special trucks; and so forth.

Prefabrication is also likely to prove a powerful factor in reducing costs as it attempts to nose out some of the more conventional construction methods in the race for the postwar mass market. Many of the war housing projects used prefabrication and here, too, lessons were learned that will assist in turning out good, well-designed homes at a cost never before believed possible.

NEW CONSTRUCTION METHODS

Radically different types of construction have been developed. This includes the use of "stressed skin" construction, which makes lighter, stronger homes with the use of less materials. In this kind of construction a wall is made by glueing pieces of wood, known as studs, between two sheets of plywood. This gives



Homes for GI's

Discharged veterans particularly will be tempted to join in a home-buying stampede soon after they leave the services. On the financing end, they'll be somewhat better off than civilians, since they'll be in a position to borrow more money at somewhat lower rates, as a result of the GI Bill of Rights (see the *Reports*, October, 1944). But on the question of what they get for the money they pay, they may be no better off than others.

Discharged servicemen should check carefully with the Veterans Administration to see just what their rights are under the GI Bill, and for how long a period after their discharge the possibility of home loans is open to them. Most veterans will do well to wait a while before committing themselves to such an important purchase.

the upright studs much greater strength than is found in conventional construction where clapboard, lath, etc., are nailed to them. With stressed skin construction the walls, floors, and roof help to support themselves; in conventional construction they are hung as so much dead weight on their supports.

New materials and new uses for old materials will undoubtedly prove helpful in driving costs down. More steel is likely to be used for framing; abundant supplies of aluminum may make its use more general in home construction; magnesium, with its good structural strength and light weight, may prove useful. In addition, recently developed plastics will be used more and more widely, especially for various kinds of coatings.

However, it is extremely unlikely that such developments will be put on the market immediately after the war. In the meantime, it's best to wait out the present inflationary trend and to plan the kind of home you want, determine how much you can afford to pay, how you are going to finance it, and where it will be.

CHECK THESE FIVE POINTS

When the time actually comes, and you venture out to buy that dream home you have wanted for so many years, there are five major points you will want to check before you buy. These points are:

1. Price
2. Financing
3. Design
4. Construction
5. Location

PRICE: It's easy to let your enthusiasm for a modern kitchen, a sun porch, and a flossy bathroom with gleaming chrome fixtures, built-in shower, and a pink tub, carry you to the point where you're not inclined to worry too much about an extra \$500 or \$1000. So first of all, look at the house with the cold eye of a banker. Be as hard-boiled as a horse trader and don't buy on the spur of the moment. Stop—and let a tough-minded banker help investigate the price. If he's willing to lend pretty nearly the full amount on the house, chances are that the price is not too high. Alternatively, you can hire a professional appraiser, or go to an architect or builder you have faith in and get his advice on prices. Some banks have a pretty thorough appraisal service, and you may find it worth while to take advantage of it.

FINANCING: Shop around for an insurance company, bank, or building and loan association that makes loans on homes. Don't take the attitude that they're doing you a favor when they lend you money. They're not. They are eager for your business. Every time they make a home loan, it means more money to them. Some require a substantial down payment. Some will loan you money at 5%, some may be willing to go down to 4% and, depending on the situation after the war, it is possible that even lower rates will be offered on unusually sound properties. Some mortgages permit you to repay the principle in full and without penalty any time you want; others make it dif-

difficult for you to pay off your debt before the end of the specified repayment period. Some terms require that you pay the first year's taxes in advance; some don't. Some permit you to borrow money for closing charges and to pay it back along with your regular mortgage payments. Some permit you to pay taxes and insurance along with your regular monthly payments. You will want to investigate these things carefully to save yourself some real money.

DESIGN: Those who don't care how the house is arranged, but are concerned largely with the big chimney on the end, the cute dormer windows and the lovely entrance, won't be particularly interested in design or plan. But if you want a well-designed home, arranged for convenience, privacy and decent living—a home that is easy to keep clean and that saves steps and stair-climbing every day, you should look into the plan.

When you go through the house ask yourself these questions, among others: Can you get from the kitchen to the front door without dashing through the living room? Can you hang your hat and coat near the front door or will you have to traipse through living room, hall and bedroom to find a closet? Is the living room jammed right up against the street with all its noise and dirt and dust, or does it overlook your back yard with its flowers and lawn? Is the porch right smack up against your neighbor's kitchen and bathroom, or is it in a location that will give you a little privacy and a pleasant view? Will it be easy to serve meals on the porch or will you have to carry food through the living and dining rooms? Can the children get from the front door to their rooms and the basement without running through the living room and tracking dirt all over your clean floors and rugs? Are there plenty of big, properly designed closets? Plenty of storage space in the kitchen? Is there an outside entrance to the basement or do you have to lug everything up and down cellar stairs?

CONSTRUCTION: Some homes are put up by jerry builders for as little money as possible, to be sold at as high a price as possible. In such homes foundation walls may sink, roofs may leak, walls buckle, plaster fall from ceilings and other defects develop. Homes of this type are the most expensive in the long run. They

eat up money in repair bills and maintenance and are a constant source of worry. You can't afford to gamble on construction. And although it is difficult for the layman to check, you can deal with a bank or building and loan association that has a reputation for good appraisal service; you can ask an architect or builder whose judgment you respect to go over the house; or you can hire a professional appraiser. The reputation of the man who built the house, also, of course, counts for a good deal.

LOCATION: Where you build will make a great difference in terms of soundness of investment, as well as in terms of the miles you and your family will have to walk every day to the grocery store, the bus stop, and the school. It can mean the difference between the children's having to play in the streets or in pleasant parks and playgrounds. It can mean either long nerve-racking trips to town through heavy traffic or fast bus service on a speedway.

If the neighborhood is gradually going downhill, your investment in a home may be ruined within a relatively short time. Good, well-laid-out neighborhoods, not necessarily expensive, provide substantial protection for your investment in a home, besides making a major contribution to pleasant living. So check the neighborhood by walking through it, visiting the shopping center, the school, looking over the kind of neighbors you'll have and the houses they live in. Find out about the taxes, the utilities, the time it takes to get to town, fire insurance rates, bus or trolley fares, and the nearness of recreational facilities.

You'll also want to look over your lot carefully and size it up as a play area for the children, or a rose garden, or a spot for a small vegetable garden and possibly some fruit trees.

IT'S QUITE A RISK

Buying a home is not as simple as buying a suit of clothes or a pair of shoes. You just can't afford to take avoidable risks on what will very likely prove the largest investment you'll ever make, in addition to being your center of activity for ten or twenty years or for life.

Don't forget, check on those five points: price, financing, design, construction, and location when you buy. But **DON'T BUY NOW!**

Household Bleaches

Properly used, they can help white clothes stay white. Used carelessly, they can do much damage. Here are ratings of 14 brands, and instructions on how to use them safely

Don't blame the bleach if your best white linen handkerchiefs go into the washtub whole and come out in tatters. More likely the fault is in your washing technique. Household bleaches, properly used, can be a great help in removing the "telltale gray" in white cottons and linens, without danger to the fabric. Improperly used, they can exert a highly destructive influence on the family wash.

CHLORINE CONTENT

CU's tests of 14 brands of widely-sold household bleaches showed most of them to be pretty much the same, though they varied somewhat in their content of sodium hypochlorite (the compound which produces free chlorine, the bleaching ingredient). None of the brands tested met the Federal Specification for government purchases, which calls for 10% free chlorine content; most brands averaged 5% to 6% chlorine. This does not mean that the commercial products are not satisfactory as bleaches. It shows only that manufacturers give the housewife a good deal less bleach and a good deal more water per quart than the government is willing to accept when it does its shopping.

In addition to hypochlorite and water, household bleaches contain sodium hydroxide (caustic soda), which acts as a stabilizer in prevent-

ing the decomposition of the bleach solution, and has some detergent effect. The 1.5% called for in the Specification is adequate to do the job. The one brand which contained more caustic soda than the specifications permit—actually over double the amount—was rated "Not Acceptable" on that account.

BLEACHES ARE UNSTABLE

A bleach solution can lose a great deal of its strength as a result of improper packaging, as the hypochlorite tends to decompose on exposure to light or to air. To minimize decomposition from light, bleaches should be packed in dark bottles; to prevent breakdown of the compound from air, the bleach bottle should be tightly stoppered, either with a metal screw-cap or a rubber stopper. Bleaches should be kept in a relatively cool place further to discourage decomposition.

Hypochlorite solutions are yellowish in color, but because one brand is deeper yellow than another it does not necessarily mean that it is stronger.

Some manufacturers add yellow coloring to their products to simulate the appearance of greater strength.

USE PRECAUTIONS

Never pour bleach solution directly into a tubful of clothes. Pour the required amount of the solution (about a tablespoonful to a gallon of water) into the water first, stir well, then add the clothing. Concentrated hypochlorite solution "tenders" fabrics, and holes and tears quickly result from the use of too strong a solution.

Only cottons and linens can safely withstand the action of chlorine bleaches; don't use them to whiten woollens, rayons or silks.

Bleaches are intended primarily for use on white fabrics; most colored materials will become faded rather than "brightened" by them.

Don't use a bleach on soiled clothing; the bleaching process should follow washing and rinsing. Hypochlorite reacts with all types of organic materials, including the dirt, and using it on soiled clothing is wasteful and ineffective.

Rinse clothing in two changes of water after bleach has been used on it, to remove the final traces of hypochlorite.

Long soaking in bleach is not necessary for good results, and too long bleaching may damage the fabric. Ten or fifteen minutes of bleaching is adequate.

Don't use a household bleach as a color remover. If you use the concentration necessary to remove color completely, chances are that you'll harm the fabric.

OTHER USES

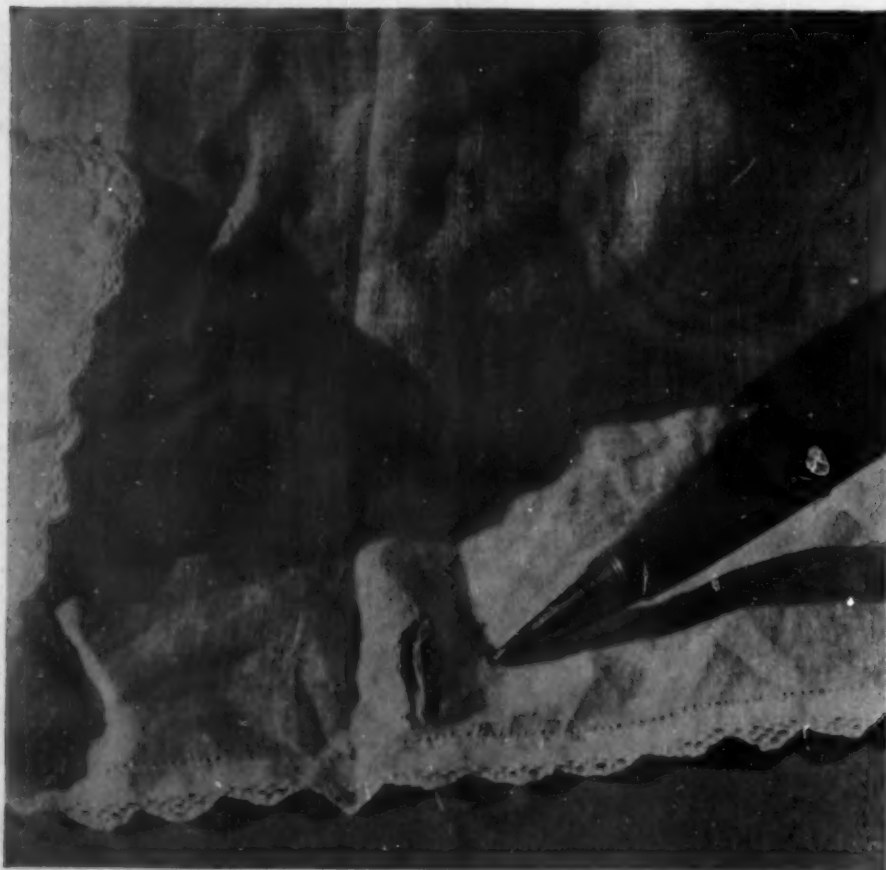
The fertile imaginations of the bleach distributors have invented a wide variety of uses to which their products may be put. These range from mouth wash to toilet deodorizer, and include douche, wound disinfectant, preventive and cure for athlete's foot, dog-bath and kennel deodorizer. One manufacturer recommends that, "a half cup to a bathtub half full of water makes bathing exhilarating and refreshing."

CU's attitude toward this multiplicity of uses is, in general, "thumbs down." There's danger in the use of chlorine solutions on body tissues, and hypochlorite serves no purpose in such use that cannot better be served by other products. As for its use in disinfecting dishes, floors, garbage cans, etc., it is harmless but seldom necessary.

CU'S TESTS

Laboratory tests were conducted on the 14 brands of household bleaches to determine free chlorine content and sodium hydroxide content. Only two of those tested were judged "Not Acceptable"—*Kaol* because it contained only 3.4% free chlorine (as compared with 4.6% to 6.4% in other brands) and *Sweet Home* because it contained excessive amounts of free alkali in the form of caustic soda.

In the ratings which follow, "Acceptable" brands are listed in order of increasing cost per quart, calculated in terms of 5% available chlorine content. At a given price per quart bottle of bleach, the brand with the higher free chlorine content would be considered cheaper. Figures in parentheses give the price per quart calculated in this way. The first figures given in each brand listing represent the selling price of a quart bottle of the bleach.



Add bleach to the water, and stir it in well before you put in the clothing to be bleached. If the concentrated bleach is poured over the clothing, it will make weak spots in the fabric, and tears like that shown above will develop.

ACCEPTABLE

In order of increasing cost per quart (figures in parentheses), based on 5% available chlorine. Prices are for 1 quart unless otherwise indicated.

White Magic (Home Needs Co., Oakland, Calif.). 9¢ (7.4¢). Contained 6.1% chlorine.

White Sail (A&P, NYC.) 9¢ (7.5¢). Contained 5.8% chlorine. Available nationally at A&P Stores.

Speedup (American Stores Co., Philadelphia). 10¢ (8.8¢). Contained 5.7% chlorine. Available nationally at American Stores.

Santox (Bleachine Mfg. Corp., Lodi, N. J.). 10¢ (9.6¢). Contained 5.2% chlorine. Available in N. Y., N. J., Ga., N. C., and Baltimore.

Glo-Rite (Glo-Rite Chemical Co., NYC). 15¢ (12¢). Contained 6.2% chlorine.

Wash-Tex (Kitchen Products, Inc., Chicago). 45¢ for 1 gal. (12.2¢). Contained 4.6% chlorine.

Clorox (Clorox Chemical Co., Oakland, Calif.). 17¢ (13.2¢). Contained 6.4% chlorine.

Rose-X (Roselux Chemical Co., Brooklyn, N. Y.). 12¢ (13.2¢). Contained 4.6% chlorine. Available in the East.

Just Right (General Grocer Co., St. Louis). 13¢ (13.4¢). Contained 4.9% chlorine.

Grisdale (Gristede Bros., NYC). 15¢ (14.4¢). Contained 5.2% chlorine.

Co-op (National Cooperatives, Inc., Chicago). 15¢ (14.9¢). Contained 5.1% chlorine.

Dazzle (J. L. Prescott Co., Passaic, N. J.). 17¢ (15.2¢). Contained 5.6% chlorine.

NOT ACCEPTABLE

Kaol (A-M-R Chemical Co., Brooklyn, N. Y.). 13¢ (19.1¢). Contained only 3.4% chlorine.

Sweet Home (Krenning Schlapp Grocer Co., St. Louis). 15¢ (12.4¢). Contained 5% chlorine. Excess free alkali.

IN "HEALTH & MEDICINE"

During the past several months, the leading articles in the Medical Section of the *Reports* have been devoted largely to what has been termed "psychosomatic medicine," dealing generally with the emotional aspects of ailments which, until recently, were thought to be purely physical. Many letters have been received, telling us that such articles were of great value.

CU's Medical Adviser would like to hear from other members. Do you find this treatment of health problems useful? Would you like to have us run more such articles? What particular subjects would you like to have discussed?

HEALTH AND MEDICINE

HAROLD AARON, M. D., SPECIAL MEDICAL ADVISER

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CU's Medical Consultants give technical advice on matters of medicine which lie within their fields. CU is responsible for all opinions concerning social, economic and public health questions.

Aging in the Male

In this article, CU's Medical Adviser discusses the physiology and psychology of the period sometimes referred to as the "male menopause," and gives a valuable insight into its mechanism

Man's search for a "fountain of youth" has been going on ever since the dawn of history. His reluctance to accept biological aging, his normal, instinctive resistance to growing old, have made him a prey for quacks and promoters of "elixirs" all through the ages. A thousand years ago, the accepted potion against aging was a complicated concoction made of animal parts and excretions. More recently, the fad ran to "monkey glands" and "rejuvenation operations." Today, the male sex hormone, "testosterone," is in vogue.

ANOTHER "MIRACLE DRUG?"

Testosterone, according to its promoters and self-deluded enthusiasts, will do practically anything but change lead to gold. Injected into the muscles or taken by mouth, it is said to cure nervousness, increase or improve general strength and—above all—restore "lost manhood." The latter refers generally to potency or the ability to engage successfully and with pleasure in sexual intercourse.

Before fact can be separated from fancy on this subject, it is necessary to know something about the normal anatomy and physiology of reproduc-

tion and sexual activity.

PHYSIOLOGY OF REPRODUCTION

The male sex glands (testes) of man and other mammals, like the ovaries of the female, are made up of two types of tissue, each having a different function. The "seminiferous tubules" contain the cells which produce and nourish the developing spermatazoa. In the spaces between these tubules are the blood vessels, the lymphatics, connective tissue and the "interstitial cells." These latter make up the "interstitial gland," the gland of internal secretion which is the source of one or more of the male sex hormones.

In the male, as in the female, two groups of hormones are involved in the functioning of the reproductive system. One group acts only on the gonads (the ovaries and the testes). These "gonadotropic" (gonad-stimulating) hormones originate in the anterior pituitary gland. In the second group are the "sex hormones" which are produced by the gonads themselves, in response to the action of the gonadotropic hormones on the ovaries or testes. The female sex hormones are called "estrogens"; the

male, "androgens." The best known of the male sex hormones is testosterone.

Testosterone can be extracted from the testes and other tissues of animals, or it can be produced synthetically in the laboratory. The latter achievement, unquestionably a milestone in endocrine medicine, unfortunately has also served as the basis for the large-scale commercial exploitation of hormones which is now in full swing. This has been aided and abetted by such uncritical enthusiasts as Paul de Kruif, whose rhapsodical, biographical account of the properties of testosterone has placed his recent book, "The Male Hormone," on the best-seller lists.

HORMONES HAVE LIMITED USE

There is no denying the fact that the sex hormones have a legitimate and useful function in medicine. It is not our purpose to discuss them in this article. We do propose, however, to correct some misconceptions regarding the psychology and sexual activity of men, and their relationship to the sex hormones.

One misleading notion, for which the medical profession is itself largely responsible, is the idea that men as well as women go through a kind of "menopause" or "climacteric." It is thought that men, too, suffer from a characteristic group of symptoms, though at a somewhat later age than women. These are said to include nervous symptoms (anxieties, depression, insomnia, etc.), vasomotor symptoms (such as sweating and flushes) and constitutional symptoms (as weakness and sexual impotence).

It is characteristic of the menopause in women that there is an increase in the excretion of the gonadotropic hormone, parallel with the decrease in ovarian function. In general, no such marked increase in the production of gonadotropins has been shown to exist in men. Certainly if it does occur in some men, its appearance is not sharply limited to a single decade in life as it is in women.

In a symposium on "Problems of Aging,"¹ Dr. Earle T. Engle concludes, "From the slight evidence of hormone excretion and the abundant clinical experience, it is safe to believe that there is no sharp decline in reproductive capacity . . . in the male

as in the female."

The statement of Dr. Engle—a leading investigator in the field of reproductive anatomy and functioning—places the problem of the male climacteric in a proper perspective. In a previous article ("The Menopause," *Consumer Reports*, July 1945) it was shown that while the normal woman loses her child-bearing capacity during about her fifth decade, her sexual capacity does not necessarily decline at that time. In the normal man, neither reproductive nor sexual capacity is lost at this age. The decline in both is quite gradual, and generally parallels the aging process. In many men there is no apparent decline in fertility or in the enjoyment of and capacity for sexual relations until the sixth or seventh decade. And there is on record an authentic case of fertility and potency in a man of 94, who had adequate potency and sperm production to impregnate his 27-year-old wife.

REAL AGE CHANGES FEW

Careful studies in the anatomy of the testes in men of all ages show that there is no difference in the interstitial cells between normal aged men and younger men except for the presence of pigment in the cells of the former. "It is apparent," says Dr. Engle, "that the widely-spread misconception that a relationship exists between the interstitial cells, sex drive and age is merely another old wives' tale." Thus, a normal man need have no fear that, as he approaches middle age, he will inevitably suffer a loss of reproductive or sexual capacity. A decline undoubtedly does occur in the course of aging, but the age at which it begins varies widely. At 50 or 60, a man is not generally able to have sexual intercourse as often as he did when he was 20 or 30. But if he is a normally healthy person with a normal psychic life, he will still experience sexual desire and have the capacity to maintain an erection for an adequate period, and to have a pleasurable orgasm.

IMPORTANCE OF THE PSYCHE

The psychic make-up of a man is far more important to satisfactory sexual function than the size of his testes or his penis, or the amount or quality of the hormones secreted by his glands. It is a matter of clinical record that many men who have been castrated, either by accident or by

surgical operation, have been able to enjoy normal sexual relations. Although they produced no spermatazoa and they lacked the full secretions, the sexual urge was intact and they were able to continue normal sexual relations. The decisive factor here is not the amount or the quality of the gonads and secretions, but the quality of the mental and emotional patterns of behavior.

Because most medical men are not adequately trained in psychiatry, the study of the unconscious, and the dynamics of psycho-sexual development, they tend to become one-sided in their approach to the problems of human biology. As a result, there is currently a tendency to over-emphasize the importance of the hormones in the treatment of sexual problems. And as a result of this one-sided, unbiological approach, which overlooks or does not understand the significance of the psychic history of the individual, many doctors have convinced themselves that men do have a climacteric, and that it can be successfully treated with hormones.

NERVOUS SYMPTOMS COMMON

No one can deny that many men experience various nervous symptoms and feelings of sexual inadequacy as they approach 40 or 50. But it is another matter to consider such symptoms and feelings as expressions of a climacteric change, or the result of impairment or decline in the function of the testes and their hormone secretions. A study of such men in terms of their psycho-sexual history, from infancy on, generally reveals that the symptoms of the nervousness or impotence (which is a symptom of nervousness) are not new, but were merely latent or had shown themselves in a mild form at one time or another during childhood, adolescence or maturity. The most important technique for studying and treating psycho-sexual disturbances is psychoanalysis. With this technique, the psychiatrist has learned that every nervous symptom, including impotence, has a history. And the nervous, constitutional and sexual disturbances that occur after the age of 40 or 50 have a history that often begins very early in the life of the individual. The symptoms may appear full-blown and for the first time in middle age—not because there is a sudden decline in the struc-

¹ "Problems of Aging," College of Physicians and Surgeons, Columbia University (Williams & Wilkins).

ture or function of the "glands," but because of the impact of psychological and social factors on the personality and emotional make-up of the man at this time.

Some of these factors have been discussed in a previous article on impotence (see the *Reports*, August 1944). The causes of impotence and nervousness in middle age are, in general, the same as those responsible for impotence and nervousness in earlier years. Additional factors operative in later years of a man's life include an awareness of his inability to perform physically as well as when he was ten years younger, and loss of occupation or discrimination against older persons in many trades and professions.

A person with neurotic tendencies, when he begins to be conscious of the fact that he can't play as many sets of tennis or keep such late hours as he used to, may react to this real and irreversible situation by becoming depressed and anxious, and by having a general sense of inadequacy. Feelings of inferiority may emerge more strongly than ever before, and may affect his relationships, his working capacity and his sexual potency. Such men may be helped if they can be persuaded to realize that physical ideals are not necessarily the most important ones for the mature man. New interests, hobbies, intellectual and cultural pursuits are not shut out to a man because he is approaching middle age or later. In a survey, Professor Thorndike found that the major creative work of 22 of 91 scientists and 19 of 80 men of affairs was accomplished after the age of 60.

PSYCHOLOGICAL FACTORS

In addition to the physical frustrations which every man must go through and learn to accept, there are even more important psychological frustrations that may affect a man's sense of emotional security. If he is married to a woman of about his own age—and therefore presumably one who is going through the menopausal adjustment—he often becomes acutely conscious of his age. If his wife reacts to her menopause with an increasing coldness to sexual intercourse (as a result of her own psychological problems), the husband may feel a sense of inferiority, and may eventually show impaired sexual potency as a result

A MUTUAL PROBLEM

The problems of the menopause and the climacteric in women were discussed on these pages in the *July Reports*. Physically, the problems of the male and the female are entirely different, for in the woman there is a true "change of life," made obvious with the cessation of the menses and the end of child-bearing. But emotionally, the reactions of the two sexes at this period are not dissimilar. In both there tends to be an unwarranted feeling of inferiority which leads to more or less serious nervous symptoms.

Unfortunately, such problems are not easily solved. And they are complicated by the society in which we live, and the fact that adequate psychological advice is available to only a relatively few people.

of his failure to produce an orgasm in his wife. If a tendency to impotence already exists, the wife's frigidity may aggravate it, and may even precipitate a full-blown neurosis, with depression, anxiety, weakness, insomnia, etc. Other men react to a wife's coldness very differently. They may turn to extra-marital satisfaction or to masturbation. Still others accept the sexual deprivation philosophically, and sublimate their sexual strivings in an occupation, professional work, politics or a hobby.

The informed and understanding husband will try to encourage and reassure his wife that her menopause does not mean the end of their sexual relations or of his affection for her. By helping his wife through this necessary period of adjustment with encouragement, reassurance and renewed expressions of affection, the husband can help her to maintain or even to recover her sexual capacity. This means for him, too, the continuation of a normal sexual life.

Although society does give to man a more privileged position and greater opportunities than it does to women, it does not give him opportunity to realize fully his psycho-sexual resources. Thus, man suffers from feelings of insecurity and from neuroses at least as much as woman does. The essential insecurity of man in the society he has created is often

startlingly revealed when he is faced with a frustration during middle age, at the height of his power. A temporary illness, his wife's menopause, or a change or loss of job may cause a sharp shift in his psychological poise. Strong feelings of insecurity may emerge, and they often become associated with nervous symptoms such as melancholia, insomnia, severe anxiety or symptoms centering around various organs such as the heart or the stomach.

Discrimination against older men at jobs is one way in which our society shows its prejudice against aging people. The fear of being a "back number" is widely prevalent in this country. This fear undoubtedly is an important factor in the development of many mental symptoms that have been traditionally associated with so-called senile or arteriosclerotic changes. The attitude of our society toward elderly people may be contrasted with that of China, where the "elders" are treated with veneration and respect, and where, consequently, the entire aging process is made easier.

SECURITY WOULD HELP

Social security measures would help preserve psychological integrity in many men throughout their mature and declining years. However, psychological and emotional security demands not only progressive social measures but also the fullest use of educational and scientific knowledge available to man. Modern psychiatry has not yet applied its full potentialities to the welfare of mankind. When it does, the possibilities for the prevention and treatment of nervous and sexual disorders at any age will be tremendously increased.

In the meantime, men troubled with impotence or other nervous symptoms may turn to their physicians for relief. If the doctor has enthusiastic convictions, the patient may obtain considerable temporary relief through a course of testosterone injections—just as in former years many men, including eminent scientists, believed their lost youth and sexual vigor had been restored by a "rejuvenation operation." But true scientific treatment of sexual and other nervous disorders must await the correlation of psychiatry with other medical specialties, in a more integrated and rational system of medical services than we now have.

Wagner-Murray-Dingell Bill

... an answer to some charges brought against it

The introduction of a revised and improved version of the Wagner-Murray-Dingell Bill in the Senate and House in May has loosed the torrents of abuse and misrepresentation familiar to those who followed the fate of the first bill. The American Medical Association is, as before, taking the lead in this outpouring.

The AMA has been accepted, more or less, as the most articulate spokesman for the opponents of social and health security. The big chemical and drug industries, the commercial insurance companies, and other assorted small and large fry in industry and commerce have contributed abundantly to the AMA's creature—the National Physicians' Committee—and have permitted the AMA to make the loudest noise. The doctors and their organizations have allowed themselves to be used by corporations and individuals whose essential goals and aspirations are foreign to those of the physician.

The AMA seems to have learned nothing since its first campaign against the Wagner-Murray-Dingell Bill. The same old scarecrows have been trotted out. It is instructive to look them over now, for they will become more and more familiar to us as national landmarks during the course of the battle of the majority of the people for social and health security.

One of the most time-worn devices for diverting attention from the real issue is the "red scare." The AMA has learned nothing about the medical economics or the lessons of World War II. Today it characterizes the physicians who support the Wagner-Murray-Dingell Bill as "mostly inclined toward communism." This recalls the editorial comments of the *Journal* of the American Medical Association in 1932, on the Majority Report of the Committee on the Costs of Medical Care. This report was prepared under the chairmanship of Dr. Ray Lyman Wilbur, president of Leland Stanford University, former president of the AMA, and, at the time of the report, Secretary of the Interior in President Hoover's cabinet. The re-

port pointed out serious defects in medical care and the high cost of paying for adequate care. It recommended voluntary health insurance as one way of meeting the costs. Yet this recommendation, which now is supported by the AMA, was then condemned by the AMA's *Journal* as "socialism and communism—inciting to revolution."

It may well be asked how doctors or the people of this country can have any confidence in medical organizations which fight so irresponsibly against progressive medical proposals.

Dr. Morris Fishbein, who does so much of the ball-carrying for the AMA, has just become converted to the cause of the workers in this country. During an exchange with Senator Wagner, in June 1945, Dr. Fishbein included among his reasons for opposing the Wagner-Murray-Dingell Bill the ancient assumption that social security and unemployment insurance would undermine the free enterprise of the workers and employees of this country and convert them into paupers and ne'er-do-wells. It will suffice at this time to emphasize that unemployment insurance will be available only to those workers who are unable to obtain suitable employment. As Senator Wagner points out, the bill specifically provides that the worker is disqualified from receiving his benefits if he refuses to accept suitable employment.

Another misrepresentation of which Dr. Fishbein is guilty is in saying that through the Wagner-Murray-Dingell Bill, "the old age benefits in some instances would pay a man more for retiring than for continuing at his job." The actual truth—which is something that seems to be hard for Dr. Fishbein to see—is that the bill includes the 80% maximum contained in the present law, and that a man cannot possibly receive as much on retiring as he has ordinarily earned in the course of his employment.

We shall have occasion to discuss more fully the social security provisions of the Wagner-Murray-Dingell Bill. For the present, we wish to

highlight some of its health security provisions. In essence, they attempt to furnish to the whole population an adequate medical service of high quality, and on terms which it can afford. Voluntary health insurance plans have had more than 15 years of trial, and have been found wanting in that they did not accomplish this end. The only workable way is through a comprehensive Federal program of compulsory health insurance. This type of insurance has been in effect in some thirty countries throughout the world. England has had such a plan since 1911. Canada is now considering a program for Federal health care.

In the words of Dr. C. E. A. Winslow, a leader in the study of public health, "Compulsory health insurance has been generally successful. Details of organization have been the subject for disagreement; but there has always been a tendency to call for an extension of the kind of service provided and an increase in the number of people to be served. In no country has either the community or the medical profession desired to abandon or reduce the program. The British Medical Association has officially pronounced that, 'The scheme itself has almost certainly reduced national sickness, and we are quite sure that if the immense gain to national health includes the immense gain to the comfort of the individual in knowing that he can have medical attention whenever he needs it, the gain is most marked.'"¹

The Health Program Conference of 1944 declared:²

"Medical services should be made financially accessible to all through a national system of contributory health insurance, combined with taxation in behalf of people without sufficient income, preventive services, and needed extensions and improvement of facilities. In order that comprehensive service shall be available to all or most of the population and in order to minimize the administrative cost of acquiring members, it is essential that financial participation in the system be required by law."

It is just these things that the Wagner-Murray-Dingell Bill provides.

¹ "Health Care for Americans," by Dr. C. E. A. Winslow. Public Affairs Pamphlet No. 104, 1945. Published by Public Affairs Committee, Inc., 30 Rockefeller Plaza, NYC 20. Price 10¢.

² "Principles of a Nation-Wide Health Program." Report of the Health Program Conference. Committee on Research in Medical Economics, 1790 Broadway, NYC 19.

NEWS AND INFORMATION

GI INSURANCE

by E. A. Gilbert

Keep your government policy, CU's insurance consultant advises, for you won't find a better insurance buy. This article discusses some facts the veteran should know, and gives advice on how he can convert his policy to best advantage

Among the many problems discharged servicemen and women have to face is the one presented by their GI insurance. Over 16 million National Service Life Insurance policies, having an aggregate face amount of over 127 billion dollars, are in force; consequently, the decisions made by our war veterans will have an important bearing on the future security of a good percentage of the population.

INSURANCE AT ALL-TIME HIGH

By the end of 1944 the private, non-government life insurance companies had climbed to an all-time high in insurance-in-force amounting to over 140 billion dollars. The second world war, which again forced the government into the life insurance business to underwrite the extra hazard of military and naval service, virtually doubled the amount of life insurance carried by the American public. The average policy sold by the private companies is less than \$2000. The average GI contract is four times that amount, or about \$8000.

If our veterans are to get the greatest benefits from their present policies it is imperative that they understand thoroughly the nature and the cost of National Service Life Insurance.

When war broke out, all the private life insurance companies eliminated *war-risk* from their new contracts. The increased mortality, which would inevitably arise from military, naval and air combat, could not be underwritten by the private companies at

standard rates. The government, consequently, with enactment of the National Service Life Insurance Act of 1940, issued contracts with rates based on peace-time mortality tables, at the same time assuming the full risk of the added mortality experience which would arise out of the war.

Under such conditions it was common knowledge that the government contract was an excellent bet for the active serviceman, and most GI's bought the maximum available—\$10,000. But less appreciated is the fact that the government contract is a "best buy" even under peace-time conditions, not just a war-time bargain.

BASIS FOR COSTS

All life insurance costs are based on accepted mortality tables. A mortality table is a statistical record of the number of people of a particular age group dying during the course of a year. It is the instrument for measuring the probability of living or dying for a person of a particular age.

The premium rates for National Service Life Insurance are based on the American Experience Table of Mortality—the table most commonly used by the private insurance companies. In addition, reserves are based on an assumed interest rate of 3% per year. In other words the government guarantees that funds invested in the policies it issues will earn at least 3% interest.

Most private insurance companies

still use the same 3% factor, but the steady decline in interest earnings is forcing them to adopt lower rates. Companies like the Metropolitan and Prudential already operate on an assumed interest rate of less than 3%.

Here the similarity of rate-making between the government and the private contract ends. The usual administrative charges added to the premium by the private companies are completely eliminated in the National Service policy. The government bears the full cost of all administrative expenses. In addition, a "Waiver of Premium" feature (to be discussed later) is included in all National Service contracts, with the full costs for this feature again borne by the government. Private companies make additional charges for this feature, and restrict its sale to specifically approved risks.

A CHEAPER POLICY

The net result of the government's assumption of the costs for both administration expenses and the waiver of premium feature is a much lower-priced policy. The following table illustrates clearly the difference in gross costs between government and private contracts. It compares the premiums charged by two representative companies—Metropolitan and New York Life—with premium rates for National Service contracts.

COMPARATIVE ANNUAL COSTS FOR \$10,000 CONTRACTS INCLUDING WAIVER OF PREMIUM ISSUED AT AGE 30

Company	Ordinary Life	30- Payment Life	20- Payment Life
		Life	Life
National Service (Government)	\$184.70	\$216.70	\$273.50
Metropolitan	216.20	287.90	361.10
New York Life	254.30	290.60	354.80

Obviously, National Service contracts are much lower in initial cost than similar contracts from private companies. But the initial lower cost is not the only advantage of government contracts.

The policies cited are all combination savings and protection contracts. This means that with such a policy you not only maintain a \$10,000 face amount in force at all times, but that in addition you create a savings account within the policy. The actuaries refer to this accumulation within the policy as the "reserve." Theoretically, this reserve belongs to the policyholder. It represents his accumulated

savings over the period of premium payment. He can recover it either by surrendering his policy or by borrowing on it at a stipulated rate of interest, usually 5%.

NO CHARGE FOR SURRENDER

Government contracts give the policyholder the right to recover his full reserve or savings at any time, without any "surrender charges" to decrease the total amount he gets back. This does not hold with the private companies. State laws allow the private insurance companies to exact heavy surrender charges during the first twenty years, and every insurance company takes advantage of these laws. Thus, the amount of cash that the policyholder can recover from his contract with a private company during the first 20 years is much less than the real reserve maintained for his policy.

There are always many policyholders who are forced, because of untoward circumstances, to raise money either by borrowing part or all of their policies' cash value or surrendering their contracts outright. How much would be confiscated in surrender charges by the private companies as compared with a government contract? The answer lies in a comparison of cash values between the government contract and a representative private contract as issued by the New York Life.

CASH VALUES OF \$10,000 20-PAYMENT LIFE CONTRACTS ISSUED BY GOVERNMENT AND NEW YORK LIFE AT AGE 30

End of Year	Amount in Government Contract	Amount in New York Life Contract
1	\$197.40	nothing
2	401.70	nothing
3	612.90	\$400.00
4	831.40	620.00
5	1057.40	840.00
10	2309.40	2070.00
15	3791.90	3600.00
20	5552.20	5550.00

Not until the 20th year and after, when the law forbids further surrender charges, can the policyholder recover the full reserve from his contract with a private company. Surrendering the contract prior to the 20th year entails rather heavy losses. No such losses occur in the government contracts.

Those who are eligible for National

Service Life Insurance and are carrying insurance for the first time, should take full advantage of the \$10,000 maximum available before resorting to the contracts of the private companies. They must be prepared to counter or ignore any specious arguments "proving" the superiority of private insurance company contracts over government policies.

WHAT IS "CONVERTIBLE TERM?"

A great deal of confusion exists as to the nature of the "convertible term contract" originally issued by the government, and the time when this contract must be converted to the so-called "permanent" forms. The belief is rather widespread that conversion is mandatory immediately after the serviceman receives his honorable discharge. This is not true.

National Service Life Insurance is originally issued as five-year "level premium term insurance." Term insurance represents pure insurance. It has no savings element, and its cost is based on the probability of death at the attained age of the insured. Since the probability of death inevitably increases with advancing age, the cost for pure protection correspondingly increases every year.

A five-year level-premium term contract avoids annual increases by averaging the mortality costs for the period covered. Thus a five-year level term contract purchased at the age of 25 would require the same annual premium over the five-year period, amounting to the average mortality cost for ages 25 to 29. The government has now extended the period in which the term contract may be kept in force by an additional three years with no increase in rate for the additional years. The government contract provides, however, that *at any time* during the eight years and while it is in force, it may be converted to a higher-cost, combination savings and protection policy.

SAME DEATH PAYMENT

Despite the wide variation in cost among the four available contracts, at death the beneficiary under any of them would receive exactly the same benefits. Thus, whether you paid \$84.10 a year for the term contract, or paid \$273.50 for the 20-payment life, at death it would make no difference to your dependents. While it is true that in the 20-payment life contract you would have created a cash

value where none would exist in the term contract, the existence of such a cash value, regardless of size, would in no way increase the return to the beneficiary.

Regardless of the label placed on a life insurance contract, or any lavish claims made for it, the contract will have to be either a pure protection policy or one which provides for savings combined with protection. When you pay more than the term rate for your attained age you are not only buying insurance; you embark on a savings program as well. And the higher the premium you pay initially, the greater the savings element in the contract.

The savings element increases annually *but it does not increase the face amount of the policy*. Actually, it decreases the protection or insurance risk in the contract. The two together always equal the face amount of the policy. In other words, the more rapidly you increase savings in a contract, the more rapidly you reduce the remaining insurance protection. This point must be fully appreciated if you are to understand the basis upon which you can change from one type of contract to another.

"SAVINGS" FEATURES

The term contract, which requires no overpayments for savings, commands the smallest premium outlay. And because there is no savings element to decrease the protection carried, the full insurance risk is borne by the government at all times.

All other contracts, which provide for increasing savings and decreasing protection, are basically endowments. The exact title of the particular contract will depend on the number of years it takes for the contract to endow, and the period during which premiums are paid. A contract is said to endow or mature when the reserve or cash value equals the face amount of the policy. Thus a 20-year endowment would require a premium sufficiently large to accumulate a reserve to equal the face amount at the end of a 20-year period.

Actually an ordinary life contract is an endowment at age 96. For an ordinary life policy, you pay premiums until age 96 or until prior death. If you are alive at 96, the reserve will equal the face amount of the policy and the contract will mature. At that time you, not the beneficiary, can take advantage of the full benefits in the contract.

The other two contracts, the 20-payment and 30-payment life, are also endowments at age 96, but on limited payment bases. These contracts are "paid-up" at the end of the specified periods. To have a paid-up policy, it is necessary to accumulate a reserve sufficiently large to earn enough interest to pay for the reduced amount of protection and still allow the savings element to grow.

Look back at the chart showing cash values for the 20-payment life contracts. You will notice that at the end of the 20th year the full reserve is \$5550. If death were to occur at this time your beneficiary would receive \$10,000. But \$5550 of this total death payment would be your own savings. Obviously, then, the net protection or actual risk to the government at this time is the face amount less the reserve (cash value) or \$4450. Since the reserve is assumed to be invested at 3% interest it will earn \$166.50 a year. This earned interest is more than enough to pay the mortality cost of the \$4450 of net protection. What is left over is again added to the reserve which, at age 96, will equal the face amount of the contract.

RESERVE MUST REMAIN

Obviously, in order to keep this type of contract in force, it is necessary to leave the reserve in the contract. If you withdraw the reserve, you destroy the basis upon which interest is earned to pay for the remaining protection. Therefore, to recover your cash you have either to surrender the contract completely or pay the interest yourself. However, when you pay the interest the rate is 5%. Do not make the mistake of assuming that with a 20-payment or 30-payment life you are paid the face-value of the contract at the end of the premium paying period. These contracts do not endow until age 96.

The five-year term contract policy issued by the government can be converted after the contract has been in force for one year, but the conversion must be made within the eight-year limit. No medical examination is required for such conversion, provided the policy has been kept in force and was not permitted to lapse.

In fact, you can convert any of the National Service contracts to *higher premium forms* without medical examination. Thus, an ordinary life or 30-payment life contract which is in force on a premium paying basis

About the Author . . .

The name E. A. Gilbert, author of this article, is familiar to many old CU subscribers, as well as to others interested in the insurance field. Mr. Gilbert is the writer of two widely-read books on insurance, "Life Insurance: Investing in Disaster," and "Life Insurance: A Legalized Racket," as well as of numerous articles which appeared in the *Reports* and other periodicals.

could be exchanged at any time for a 20-payment life contract merely by paying the difference between the reserve on the old contract and the reserve on the new policy, without submitting evidence of insurability.

The reason such a change can be effected without the need for medical examination should be clear. As described above, the payment of an additional amount to increase the reserve actually reduces the protection in the contract and consequently reduces the risk to the government. Any one who makes such a change when he is in ill-health would, therefore, be most imprudent.

Changes from high-cost to low-cost plans, which reverse the process by having the government pay to the insured the difference in the reserves, can be made only after satisfactory evidence of insurability is submitted. Obviously, the government is not willing to permit policyholders arbitrarily to increase the risk when they are in poor health or face imminent death.

"WAIVER OF PREMIUM"

We are now ready to examine the "waiver of premium" feature. This feature provides for the discontinuance of all premium payments by the insured whenever he shall become "totally disabled." The definition of total disability in the National Service life insurance policy is "any impairment of mind or body which continuously renders it impossible for the insured to follow any substantially gainful occupation."

Under conditions of total disability, all premiums will be waived *regardless of the type of contract in force*. It is extremely important to understand the full implications of this provision. As long as the term con-

tract is in force you have the right *at any time* to change to any one of the higher cost contracts, regardless of your physical condition. *And even if you are totally disabled* you can convert to any of the other plans from term insurance. But once you have converted your term contract to one of the three other kinds of insurance, you are not permitted to make further changes, either upward or downward, if you subsequently become disabled.

WHEN TO CONVERT

Here, then, is an important clue to guide the discharged veteran in solving his problem. Those who are totally disabled should convert their term contracts, *immediately*, into the maximum amount of the highest cost contract available—the 20-payment life. The disabled veteran need not concern himself with the cost. For as long as he is considered totally disabled all premiums will be waived and the contract will be in full force, building up an ever increasing reserve, just as if he were paying the premiums himself. Of course, if the contract under conditions of total disability is continued in force until it matures as a death claim no advantage is gained by selecting the highest-priced contract. As has been pointed out, the amount of the cash value at the time of death in no way affects the total which will be paid to the beneficiary. But the contract is not necessarily going to be kept in force until death. If the veteran is single, with no dependents, he ultimately will want to use the cash value for his own purposes, either by borrowing it or surrendering the contract completely. In such a case he will want to create the largest amount of savings possible.

Under many circumstances, as in psycho-neurosis, the total disability is only temporary. Under the 20-payment life plan, any recovery from disability which takes place after 20 years have passed will not affect the status of his contract. By then it will be all "paid-up."

It should be pointed out, however, that before he converts to a high-cost contract, the disabled veteran should be reasonably certain that his disability is more or less permanent. For the moment he is considered to be recovered from his disability, he will be required to resume premium payments on his insurance, and his financial condition might preclude his maintaining a high-cost contract. Re-

member, it is hardly likely that anyone who was ever totally disabled would be able to pass a physical examination to effect a change to a lower premium contract. Thus, the desire to take advantage of having a few high premiums waived might end in collapse of his entire insurance program.

Those servicemen who suffered physical or mental disability during their enlistment but who have seemingly recovered at the time of their discharge would do well to postpone conversion as long as Congress makes it possible (now eight years). It is possible that some of those who were disabled during the war but were considered "cured" at the time of their discharge, may have relapses or "crack-ups" following their return to civilian life. If the term contract has already been converted, say to an ordinary life, and a relapse occurs, they will not be able to take full advantage of the waiver of premium feature on a higher-priced contract, but will have to be content with having premiums waived on the ordinary life. It is best to postpone conversion until such a time as you are reasonably certain what your future physical condition will be.

COST OF CONVERSION

That brings us to the last but most important factor determining time and type of conversion—the economic factor.

Most GI's will ultimately return to normal jobs in factory, farm and office at modest peace-time incomes. For most of them the retention of \$10,000 of insurance on the high premium basis is out of the question. Certainly, they should not take a flyer on future economic security by converting immediately to the more costly contracts. Nothing is lost by continuing the protection on the term basis until a certain degree of stability is achieved. We must not overlook the fact that a considerable number of those who will be discharged will be young unmarried men with no dependents and less responsibility. This group is urgently cautioned to think twice before converting any portion of the term protection to cash-value types. This recommendation is made because of the high probability that once the contract or any part of it is converted to a cash value type it will subsequently be discovered to be of little value, there being no dependents, and ultimately it will be dropped for

its surrender value in cash.

National Service life insurance specifically states that once a given amount of insurance is surrendered for its cash value, the veteran forfeits his right ever to obtain that amount again. If, therefore, you convert your present \$10,000 term contract to say \$8,000 of ordinary life and subsequently surrender it for its cash value, the maximum amount you will be able to purchase subsequently will be \$2,000. This would represent a frivolous and costly sacrifice of insurance which might desperately be needed when the economic status of the veteran changes.

This provision applies only to contracts which are surrendered for cash. It does not apply to policies which are permitted to terminate without recovery of any cash value. Thus you could allow your term insurance to expire without converting it and then, any time in the future, provided, of course, you could pass the physical examination, you would be eligible for a new \$10,000 contract.

The conventional attitude toward term insurance is invariably derogatory. The shop-worn argument is that you get nothing back if you decide

to discontinue it. Usually it is compared with fire insurance but no one ever bothers to prove that you shouldn't buy fire insurance because you don't get anything back if there's no fire.

Those who reason this way will counsel veterans to convert their insurance immediately: continue the same premium originally paid for \$10,000 of term insurance but buy a reduced amount of cash value insurance. On this plan they would be able to buy approximately \$3000 of 20-payment life or \$4000 of ordinary life. While it is true that these plans provide increasing cash value within the policy, it is obtained only at great sacrifice of much-needed protection where there are dependents, and the relinquishing of important conversion options for the unpredictable future. Again, "sitting it out" might pay high dividends.

Of course, for those with high stable incomes, the government savings and protection contracts are "best buys" as compared with similar contracts of private companies. Those in this group, provided they enjoy good health, can safely convert to the higher-priced forms without waiting.

Continuance of National Service Life Insurance

INFORMATION FOR VETERANS
OF WORLD WAR II

JUNE



1944

INSURANCE FORM 1535

VETERANS' ADMINISTRATION

Washington 25, D. C.

Information on the routine problems entailed in conversion, paying premiums, applying for disability benefits, reinstatement of contracts, etc., can be obtained from a pamphlet, "Continuance of National Service Life Insurance," available free from the Veterans' Administration, Washington 25, D. C.

A POSTWAR PROGRAM for Consumers*

by Arthur Kallet

The consumer has been cast for a truly delightful role in the postwar economy. He is, in the words of War Mobilization Director Vinson, in the pleasant predicament of having to learn to live 50 percent better than he has ever lived before. "We must build our economy on that basis," said Mr. Vinson in his recent quarterly report.

THE PROBLEM OF BUYING

I am sure that the average consumer could, with the greatest of ease, use 50% more in the way of goods, services, education, recreation and so on, after the war. But what the consumer wants to know first of all is how to get the money with which to buy them. Furthermore, millions of consumers are worried right now about being able to continue buying even as much as they did before the war.

Here the consumer's problem becomes the problem of his alter ego—the worker, the farmer, the professor, the small shop keeper, the manufacturer, the investor—the problem of gaining a livelihood.

The first point on the consumer's program for full consumption after the war is, therefore, full employment—a job for everyone willing and able to work. Good jobs make good consumers. And full employment is the best insurance of prosperity—and a good standard of living—for farmers, small shop keepers, and all others who sell goods or

services to consumers. As a beginning, consumers should support the Murray full employment bill so that the government will be empowered to plan for full employment and to take measures to insure it.

Second on the consumer's list should be a broad program of social security to provide at least a minimum standard of living for the aged, the disabled, for all those who for any reasons beyond their control cannot, temporarily or permanently, earn a living. If we are to have full consumption, these people too must share in it, and by doing so, make their contribution to the consumer demand required for full production and full employment. To this end, consumers should support the Wagner-Murray-Dingell social security bill.

FEAR OF INSECURITY

These two things—the guarantee of full employment, and social security covering the entire population—would insure a third essential for our postwar economy: freedom from fear of economic insecurity which makes people hang on to their money instead of using it to create jobs and production by buying goods.

Since most jobs must be provided by private business, and since this cannot be done under conditions of limited production, the consumer should insist that the government do as much planning and exercise as much control as necessary to see that the price and production policies of business are aimed at full production and not at scarcity. Despite the unquestioned evils in what is called bureaucracy, essential controls for the benefit of all by a democratically

elected government are preferable to unchecked control for their own benefit by a handful of giant corporations.

Consumers should, therefore, support every measure which will curb the power of monopolistic groups to limit production and keep prices artificially high, and they should insist on continued government operation of government-owned plants wherever necessary to insure full production, to resist limitation of production by monopolies and to provide a yardstick against which costs and prices of monopolistic industries can be measured. They should also support changes in the patent system which now permits the use of patents to bolster monopoly and to freeze technical progress.

Consumers should also insist on fulfillment of the government's announced intention to dispose of surpluses in such a way as to aid small business.

PRICES MUST BE LOW

Low prices are essential in our postwar economy because the lower prices are, the more goods the consumer's dollar will buy, and the more production and jobs there will be. For the same reason, rising wage and salary levels are essential, so that workers as consumers can buy the constantly increasing quantities of goods that full employment, aided by steady technological progress, will provide. Consumers must realize that the steady increase in industrial productivity not only permits, but makes imperative, rising wage levels along with low prices to consumers. Consequently, the efforts of unions to maintain and improve wage levels should be supported.

Consumers should continue to uphold the right of workers to bargain collectively. They should not permit themselves to be aligned against organized labor by those industrialists and publishers who shout about the misdeeds in a small minority of unions, while they misrepresent legitimate demands and grievances, and try to divide workers and consumers.

HIGH WAGES WILL HELP

If labor, with the aid of consumers, government, enlightened businessmen and farmers, can maintain and increase wages in the postwar years, the vast majority of us will benefit.

Wartime experience has taught

*Prepared for the symposium on "Reconverting to Full Employment, Full Production and Full Consumption" at the Conference on Wartime Economic Stability and Prosperity, sponsored by the School of Education of New York University, and held at New York University July 17, 1945.

CUMULATIVE INDEX

Each issue of the Reports contains this cumulative index of principal subjects covered since publication of the 1945 Buying Guide issue. By supplementing the Buying Guide index with this one, members can quickly locate current material and keep abreast of changes resulting from new tests. Page numbers run consecutively beginning with the January 1945 issue Jan. 1-28; Feb. 29-56; Mar. 57-84; Apr. 85-112; May 113-140; June 141-168; July 169-196; August 197-224.

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consumers the importance not only of price, but also of quality in the things they buy. The consumer should, therefore, work for a broad program of government sponsored quality standards plus, wherever feasible, grade labeling. Consumers should have the protection of knowing the quality of the products they buy, and grade labeling is the best means of giving such protection. Consumers Union has proposed, as an aid both to small business and to consumers, that the government make it possible for producers in many lines to sell products certified to meet government quality standards, as is now done with canned fruits and vegetables.

CONSUMER PROGRAM

The consumer's program for a prosperous and stable postwar world is a long one, for so many things in that world, political and economic, affect his welfare. His program ranges from insistence on continued price control and rationing, wherever necessary, until full production is restored, through revised taxation to favor both the low-income consumer and the small businessman, to support for Bretton Woods and the San Francisco Charter.

Finally, the consumer should recognize the grave danger that adequate preparation for the transition to peace will not have been made when the war ends. The failure of Congress to act on the emergency unemployment insurance measures recommended by President Truman is certainly not encouraging. The consumer program should, therefore, include organization of consumers and action on the legislative front by consumer groups—action directed not only at such clear-cut consumer issues as price control and rationing, but also at every other issue that sooner or later will be reflected in the living standards of all the people.

CONSUMERS UNION

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FOR SCHOOLS AND YOUTH GROUPS - MEN'S AND WOMEN'S GROUPS - UNIONS AND AUXILIARIES

Susan Brothers, Group Editor

Radio Bilks the Listener

Have you ever thought of all the things you *don't* get over the radio? You don't get both sides of many current controversial subjects. As a matter of fact you frequently don't get either side. You seldom get musical programs uninterrupted by irrelevant and often obnoxious advertising. From most stations you get very few symphonic or operatic programs. And, you get little in the way of educational programs.

The people want something more than jazz and jokes and "soap opera." They want the widest possible range of information, ideas and entertainment.

The desires of the people, however, do not coincide with the primary aim of the radio industry, which is to make as much money as possible—the people's desires notwithstanding. And the industry knows that the way to make the most money is to sell as much time as possible to sponsors who use the time to sell goods. We have no quarrel with the desire for profits, but inasmuch as stations are licensed to use their assigned channels in the people's interest, we do question the right of advertisers to substitute poor quality and sometimes offensive programs for programs that are in the public interest. And, sponsors do just that! When they buy time, they and their agents, not the radio station, provide the program. "Hello Americans" (CBS) is only one of the excellent sustaining programs that has been taken off the air by an advertiser who bought the time.

In addition to a decrease in "good" programs, listeners are irked by the increase in "bad" advertising. Complaints to the Federal Communications Commission (FCC) as well as to radio stations show that listeners

resent the "singing commercials." They don't like the "Be-e-e Oh" song. They rebel at hearing about faulty elimination at meal time. And they are offended at being told to "Relieve that itching *now!*"

A survey by the Office of Radio Research, Columbia University, shows that 81% of the persons interviewed want *no* commercials. Harangued listeners want to know whether there is any hope. Let's look at some of the "happenings" in radio and let each draw his own conclusions:

1. According to FCC only one station in the U. S. has ever gone bankrupt—KITE in Kansas City.

2. The Proctor and Gamble Co. spent \$11,014,000 for radio time in 1944; spent \$22,000,000 in total radio costs.

3. The United Auto Workers (UAW), CIO, petitioned the FCC to reconsider after the FCC renewed the application of Station WHKC. The UAW charged that WHKC was throttling free speech. The case is still pending.

4. The St. Louis Post Dispatch in February started a crusade against objectionable radio advertising. Starting on its own station, KSD, a ban was placed on commercials that break into the middle of a news broadcast. No time is being sold to advertisers who deal in "palliatives for bodily aches and pains, stomach acidity and gas, body odors, enlarged pores, bad breath and a thousand and one equally revolting subjects." Other stations joined the crusade. Paul Porter, FCC chairman, endorsed it.

5. William Benton (University of Chicago) and others applied to FCC for the right to operate three FM stations simultaneously in New York City. One would broadcast

serious, and another popular music 24 hours daily; and the third, news, lectures, public events and educational programs 16-18 hours daily. There was to be no advertising. Listeners would rent at from 2¢ to 5¢ daily, a small gadget to be attached to their radios, which would make it possible for them to receive these programs. FCC has not yet approved.

The signs are both good and bad. The industry's profits are increasing and it will fight change. Liberal forces are becoming rebellious. They feel that radio bilks the listener and they don't like it. The fight may be long and hard, but it is surely on.

A Radio Party

If you want to do something about the radio problem, hold a radio party. It's a good way to spend an evening and you and your friends will have an interesting as well as an eye-opening experience. Instead of twirling the dials to escape the ads, invite your friends to *tune in on* the ads with you. Here's how to do it:

1. Move enough comfortable chairs into easy listening distance of the radio.

2. Provide pencils and paper.

3. Start the party by having someone read aloud the article, "Radio Bilks the Listener."

4. Stimulate a short discussion. You might ask these questions: Would you like to see any changes in radio programs? What kind? Does radio advertising bother you? What kind is most offensive? Would you pay a small fee to listen to broadcasts free of ads?

5. Now, tune your radio from one station to another, catching as many commercials as possible.

6. Have each person list ads that he either likes or dislikes.

7. After listening a while have each person give his reactions.

A radio party is suitable not only for an evening at home, but also as an activity for schools and clubs.

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